RU patent No 2326433 (priority since 14.05.2007, published on 10.06.2008)

METHOD OF SIMPLIFICATION OF ACCESS TO INTERNET RESOURCES PLACED ON INTERNET, LINKS ON WHICH ARE PUBLISHED IN PRINT AND ELECTRONIC MEDIA

DESCRIPTION OF THE INVENTION

Scope

The present invention relates to methods of digital computing and data processing, specifically designed for information retrieval; database structure for this purpose [G06F 17/30]. More specifically the method could be used by authors of publications, books, articles or other print or electronic publications to simplify a list of links to sources of information (literature), which can be found on the Internet.

The level of technology

The Internet is increasingly becoming an integral part of everyday life. A continuously growing number of users, and the amount of information placed on the network, or rather on servers, which are a major component of the network.

The Internet has become a global repository of information of many different areas of expertise, which is increasingly used by different media and people of different professions. If a person needs to place in a print publication a link to information posted on one of many servers of the network, that person needs to post the link as an Internet address, which often consists of several dozen of characters and symbols. It is obviously difficult to the reader of that print publication to get information on that link, because he needs to reprint without errors this address into the address window of Internet browser of his Internet access device (PC, mobile phone, etc.). In addition, it is very difficult to remember or to transmit such link in form of an Internet address to the information posted on the network server not in print (and in general, using a visual channel of information), and in the process of transferring information where the main channel of communication is sound (communicating orally, by telephone, radio, etc.).

It is known the US patent 6023701, which describes the method of faster access to Internet resources of interest by extending the functionality of folder «Favorites». The rationale is that, except for the address of visited resource user can set the browser which in the folder «Favorites» will get all (or some) Internet addresses which a user visit after the first Internet address, and grouped by category. In a subsequent user may choose the level of searching desired resources in folder «Favorites».

The disadvantage of the method is that for quick access to the desired Web site user should visit it before and add it to the folder «Favorites». There is also no possibility in such method to simplify access to interesting resources for other users. That is, each user must first visit the Internet resource and then add it to the folder «Favorites». That is, simplified access to a desired Web site is possible only through that terminal (and only through that Web browser) of access to the Internet, a user of which was previously at this Web site and added it to the folder «Favorites». Also, there is no way to comment Internet resource in form of additional text or image file. Also, there is no way after user entered the code to get simultaneous access to multiple sources of related information.

Furthermore, there is no possibility to edit information on a specific code with reference to source of information, such as to edit the link. Also, there is no access to Web pages, in event of termination (temporary or permanent) of Web site.

The closest analogue is the GB patent 2375195, which describes the system as a depository library data, which is formed by assigning to each publication in electronic form individual code to be kept under strictly defined algorithm, in which encrypted data on print analog of electronic

media (author, title, edition circulation, date of publication, ISBN, etc., as well as the number of each copy). For example, the book "Don Quixote" must have the code "CSPNLIT 3. Searching of the electronic version of this book in the library database is carried out on this code. These codes are formed or by publishers of print editions or by their distributors supplying them to libraries, and then librarians, who have access to the library database of codes, enter these codes to the library database. This system is essentially similar to known universal decimal classification (UDC) with the only difference that the UDC shall consist only of numbers and be created by another algorithm, and that to find a copy of publication is possible only entering the correct code, visiting the library.

The disadvantage of this invention is that users have no possibility to add in the library database any interested for them literary sources of information, not being its authors or publishers. Users have also no possibility to leave a comment to a Web resource of library in form of additional text or image file. It is impossible to ensure access to the Internet address of any Web site by any user and for any user of the network. Also, there is no way after user entered the code to get simultaneous access to multiple sources of related information. Furthermore, there is no possibility of editing information on a specific code with reference to source of information, as well as editing the link.

Technical results of declared invention are that the author of a book, article or other print or electronic publication by using a short code can simplify drawing up a list of links to sources of information (literature), which can be found in Internet. The method allows also getting simultaneous access to multiple information resources after entering only one code, and allows the user to complement the content of displayed pages by contact, text or graphic information. In addition, it is possible editing text, graphics and contact information on a specific code with link to source of information, as well as editing the link.

The essence of the invention

The declared technical result is achieved by ensuring that the method of simplification of access to Internet resources, links of which are published in print and electronic media, is ensured by the assignment to links to Internet resources of individual alphabetic or numeric or alphanumeric codes, and a reader of print and electronic publications has access to Internet resources through access to the Internet and enters the code, using at least one server which contains the database, which in turn consists of a table of links to Internet resources and assigned to them individual alphabetic or numeric or alphanumeric codes or codes with other characters and / or symbols, and the mentioned server is made accessible on the Internet through a Web site directly or through another server that hosts Web site, in turn, through interface of which a user interacts with database, where user enters via Web site into a database full link addresses of Internet resource, and then using software of the server that hosts Web site this address is added into the database, and it assigns to the Web site address a unique code, and communicates this code to the user, who publishes and / or distributes the code.

Other possible variations of the method provide that the server that hosts Web site and performing coding is able to copy pages of Internet resources which user enters into a database to get the code.

Other possible variations of the method provide that the server that hosts Web site and performing coding is able to permit to user to add and / or edit comments on the link to an Internet address resource in form of additional text or image file.

Other possible variations of the method provide that comments are carried out in form of active links to Internet resources.

Other possible variations of the method provide that the server that hosts Web site, performing coding, is able to permit to user to save, using code, few links to Internet resources.

Other possible variations of the method provide that the server that hosts Web site, performing coding, is able to permit to user to choose code that corresponds to the link to the address of Internet resource.

This invention eliminates the above mentioned difficulties by creating a method of assigning to a Web address unique code. Then, to get interested information, which is located on a server, the address of which was recorded in the database (and unique code has been assigned to mentioned address), the user has to form a request to the Web site through interface interacting with the database of his device of access to the Internet. For access to the Internet can be used PC, mobile phone, smartphones and other devices.

The method uses at least one server that contains the database, which in turn consists of a table of Internet addresses and assigned to them individual alphabetic, numeric or alphanumeric codes. This server is made available on the Internet directly or through another server that hosts Web site, in turn, via which the user interacts with database.

Along with displaying information contained on Web page URL of which is corresponding to entered code, at the user's terminal is automatically displayed text and / or graphic comments which correspond to each Web page, URL of which and mentioned comments have been added previously by user in mentioned database. The database of comments may contain information about the contact data of author of publication. The database of comments could also provide a database consisting of Internet addresses (URL), indicating the location of Web pages and relevant to each URL of additional text and / or graphic files.

When a user (1) (see Fig.1) wants to simplify to the reader (4) of its publication (3) access to information (7), which is available on the Internet, to which he refers in its publication, he, using access device (2) to the Internet, makes the request to the server (5), which hosts Web site, performing coding. Using Web site interface user (1) enters to the database (6) of Web site(5), which can be implemented as a separate server with the database server with links to Web site(5) in form of URL-link (8), full Internet address of the resource (7), located on the Internet. Also, the user can enter additional information, for example, his contact information (11), text (9) or graphics (10) comments on the link, in order this information may explain the link. For example, text comments (9) can clearly identify the places at the source of information (pages or lines), which clarifies that relates to his publication. Graphic comments (10) in form of pictures or animations can be, for example, the thematic index that reflects the source of information for the URL-link (8).

After entering information via the Web site interface software of the Web site forms (12) and gives to the user (1) unique code and stores it in its database (6). Then the user can place the code (13) in his publication (3) with purpose that it subsequently becomes available to the readers (4). The user can also use mentioned code to communicate to everyone the location of his information in the network.

When a reader (4) of publication (3) wants to get information to which its author (1) referred using the code, reader (4) using any access device (2) to the Internet through a network makes request to the server (5) of Web site, where the base of codes is placed. Using Web site (5) interface reader (4) enters previously received code. The program of the server (5) searches address of Web link that corresponds to the code and through the Internet sends the reader (4) at the Internet address of the resource (7), where the reader gets interested information.

The server (5) that hosts Web site, performing coding, is able to index pages of Internet resources that users enter into the database to get the code. The provisional index allows creating a copy of all pages of Internet resources and if server, where an Internet resource is placed, is temporarily or permanently unavailable, the server that hosts Web site would provide access to copies of pages on the Internet resources. So, in any circumstances, using the code of a Web site,

a reader always gets information, regardless of whether Web site is available in the network at this time or not.

The server (5) that hosts Web site, performing coding, is able to provide user an opportunity to save a few links to related topics of Internet resources using only one code. This allows the author of publication significantly reduce place in the bibliographies by the fact that entered only one code the reader finds many sources, which describe an information in support of the author's words. A reader hasn't to spend time on analysis of the consistency of the link to the source of information with a place in text of book or article, which provides the link, because comments to links replace those requirements.

Entering the code the reader gets access to the Web site page, where are placed all these links, like to the related Internet resources. In this regard, user gains the possibility to leave comments on Internet resources in form of additional text or image file, because under each of links to related Internet resources is possible to leave comments in form of text and / or image file, which clearly give the user an understanding of what related Internet resources might be opened then. The advantage of this opportunity consists in that the reader sees comments in form of text and / or image file, instead of Internet links to specific Internet resource, which itself has no information.

The base of hyperlinks is a database consisting of Internet links, to which individual alphabetic, numeric codes, codes on the basis of other print symbols and signs or combined codes are assigned. This database is intended to replace Internet links in the print media (books, newspapers, magazines, etc.) by shorter alphabetic, numeric or by combined codes. Under the code is understanding combination consisting of one or several letters and / or figures and / or signs.

If the Web site allows the user, who uses only one code, to save few links to related Internet resources, the code corresponds to one Internet link that opens a page that contains many links and / or comments in form of text and / or drawings.

The base of hyperlinks is created by administrator and / or by visitors of the Web site through a Web interface.

Fig.2 shows an example when a reader (4) enters code (14) to apply Web site interface (5).

Fig.3 shows an example of applying by user (1) of Web site interface (5) to enter URL-link (8), as well as comments (9) and / or graphic images (10), contact details (11).

The implementation of the method is presented by the scheme shown on Fig.4. It is based on the next. Before user (1) through the Web site (5) leaves the URL-link (8) to the source of information (7), he analyzes the availability of information on the Web-server (7) using this URL-link. Make sure that mentioned information is available and placing it in the field (8) (see Fig.3), as well as entering other information (9, 10, 11), the user sends a request via the interface program, which analyses the correctness of filling user's information. Validation of required information can be realized on the basis of the algorithm shown in Fig.5. If the URL-link specified by user (1) exists, the program creates (12) code and grants (16) it to user. If user (1) enters specified URL-link, which does not exist or Web-server (7), where URL-link is placed, is not working, Web site (5) program returns the user back to the page of filling data shown in Fig.3, with possible comment that indicated URL-link is incorrect.

If reader (4) comes to Web site (5) in order to enter code (14) (see Fig.2), the Web site's program (5) verifies (20) (see Fig.5) the availability of this code in the database (6) and, if found, redirects (18) the user's browser to the URL-link, which corresponds to the relevant code. As a result, the user gets access to source of information (7) at appropriate Web-server on the Internet.

If user (1), who had earlier entered a code, wants to make adjustments, it can be easily implemented based on user registration, which can be performed automatically when filling out forms with the data. This is an opportunity to edit text, graphics and contact information, such as

to edit the link. For example, if the user entered his contact information (11) in form of e-mail addresses, after registering code an automatically generated password to make changes will be sent on a user's specified e-mail address.

The user may make changes after entering the password (21) (see Fig.6), which is checked for correctness (22) of user's login and password in the database (6). If login and password are correct, the user becomes accessible to edit code's profile: URL-links, contact details, comments, images. After editing mentioned information the user can both save changes (24), followed by writing them into a database (6), and refuse to change it. If the appropriate user's password and login are incorrect, the program returns the user to re-entering the login and password. In doing so, user's specified e-mail address may be as login.

The server that hosts Web site, performing coding, may be able to provide user (1) an opportunity to choose code (14), which corresponds to the link (8) to the address of Internet resource (7). The opportunity to register link (8) under the selected code (14) depends on the fact if there is already the code (14) in the database (6) of Web site (5) or not. If the code (14) is busy (someone has registered just this code or the Web site program (5) has generated it automatically earlier to someone), the Web site program (5) proposes the user (1) to select another code (14). If selected by user (1) code is not in the database, the Web site (5) program allows the user to use it.

Fig.7 shows example of applying the interface with the ability to provide the user an opportunity to choose code which corresponds to address of Internet resource.

Example

The author wants to place in the book a Web link to the Law of Ukraine «About Advertising». This link is displayed as follows: http://zakon.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=270/96-%E2% F0 & print = 1. In addition to aesthetic unpleasantness it will be difficult to book's reader to reprint it in window of Web browser, because it consists of 73 characters. To avoid these shortcomings, the author can use the database of hyperlinks. He has to visit Web site with database of links, for example, www.linkkod.com and in appropriate window to place the link (using Copy / Paste), then a code (for example, st56) will be assigned to this link. After this the Ukrainian Law «About Advertising» can be reached or by typing in the browser www.linkod.com/st56 or by entering in search window code *st56* on www.linkod.com .

The level of technology and software make it easy to create quick access to desired Website without entering www.linkod.com , for example, through a small program - Widget (widget) as agent or toolbar, integrated into the Web browser, interacting with a site database of links.

The Author of publication (a book, article, magazine, etc.) can place in the text or links to www.linkod.com/st56 or code *st56* with notice that all codes are entered on the site www.linkod.com .

CLAIMS

1. Method of simplification of access to Internet resources, placed on the Internet, links to which are published in print and electronic media, characterized by the fact that readers of print and electronic media get access to Internet resources through access to the Internet network and via entering the code, also characterized by the fact that it used at least one server which contains the database, which in turn consists of a table of links to Internet resources and assigned to them individual alphabetic, numeric, alphanumeric codes or codes with other characters and / or symbols, the server is made available on the Internet through a Web site directly or through another server that hosts Web site, distinguished by the fact that the interaction between user and the database is realized through Web site interface, in which the user enters into the Web site database the full link to address of Internet resource, then using software of server that hosts Web site this address is added to the database and a unique code is assigned to it and then this code is communicated to the user and the user publishes and / or distributes this code, meanwhile the server that hosts Web site, performing coding, may be able to enter or to edit comments on the link to an address of Internet resource in form of additional text or image files.
2. The method according to item 1, which is distinguished by the fact that the server that hosts Web site, performing coding, may be able to copy pages of Internet resources which the user enters into a database to get the code.
3. The method according to item 1, which is distinguished by the fact that the comment is made in form of active link to Internet resource.
4. The method according to item 1, which is distinguished by the fact that the server that hosts Web site, performing coding, may be able to provide the user an opportunity to use one code to save few links to Internet resources.
5. The method according to item 1, which is distinguished by the fact that the server that hosts Web site, performing coding, may be able to provide the user an opportunity to choose code which corresponds to the link to the address of Internet resource.

FIGURES

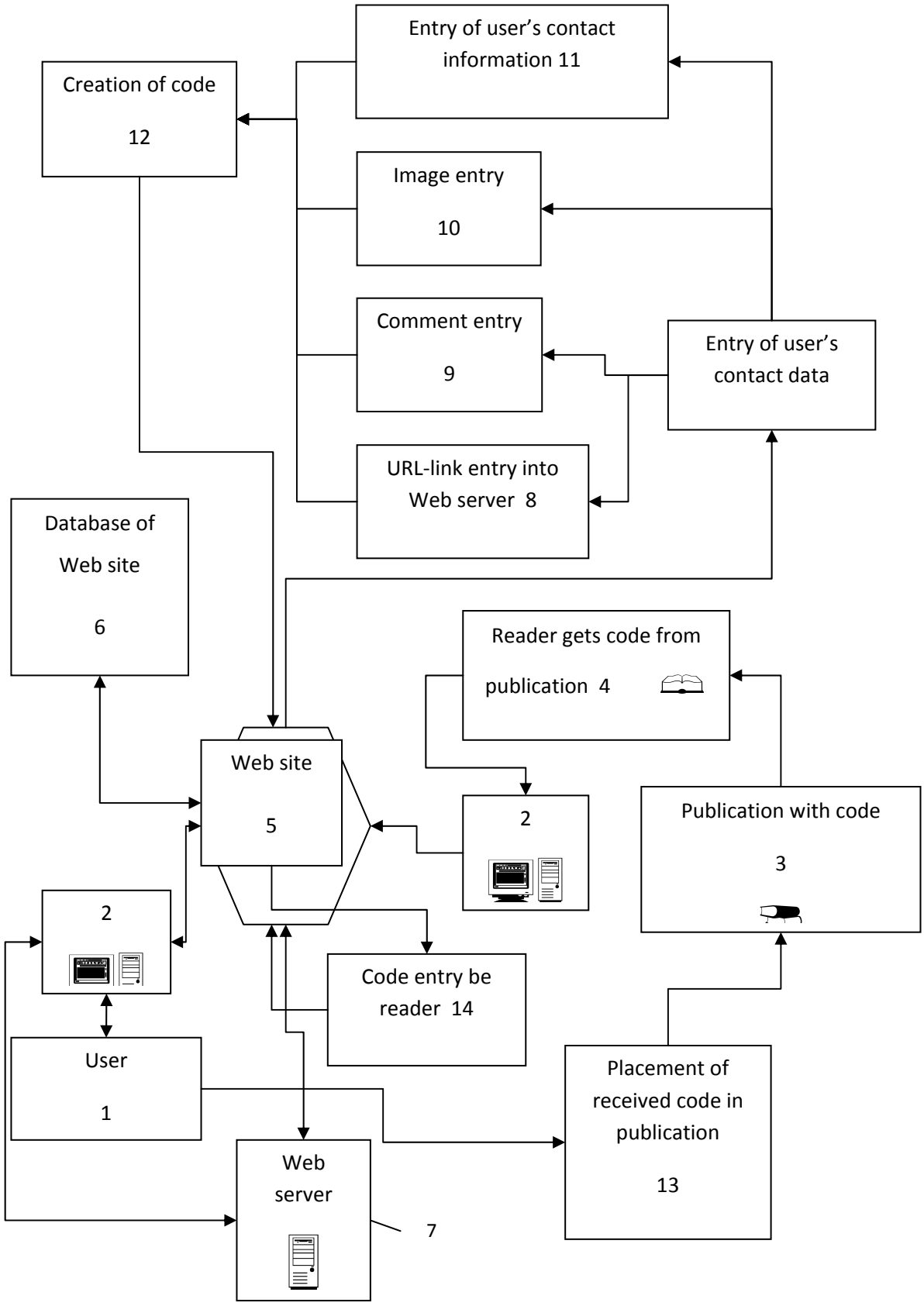

Fig. 1

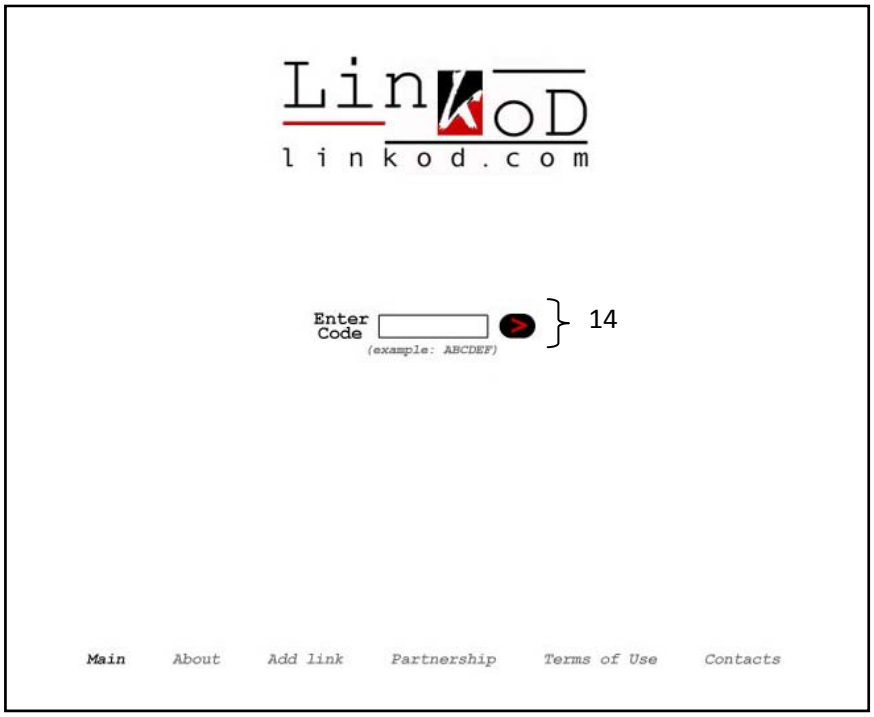
LinKoD
linkod.com
Enter Code
(example: ABCDEF)
14
Main
About
Add link
Partnership
Terms of Use
Contacts

Fig. 2

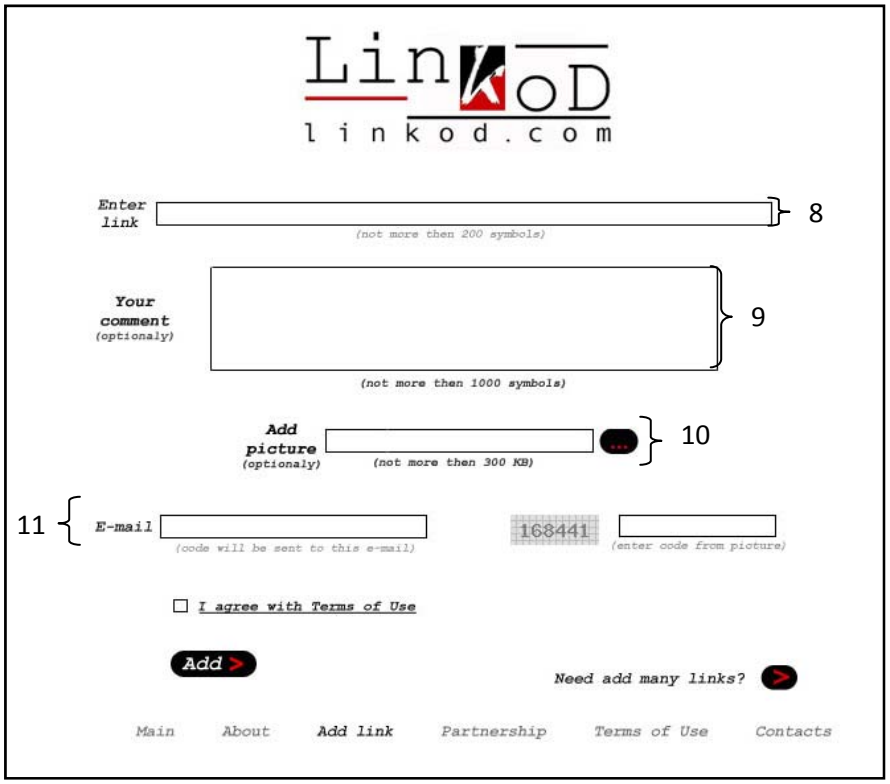
LinKoD
linkod.com
Enter link
(not more then 200 symbols)
8
Your comment
(optionaly)
(not more then 1000 symbols)
9
Add picture
(optionaly)
(not more then 300 KB)
10
11
E-mail
(code will be sent to this e-mail)
168441
(enter code from picture)
I agree with Terms of Use
Add
Need add many links?
Main
About
Add link
Partnership
Terms of Use
Contacts

Fig. 3

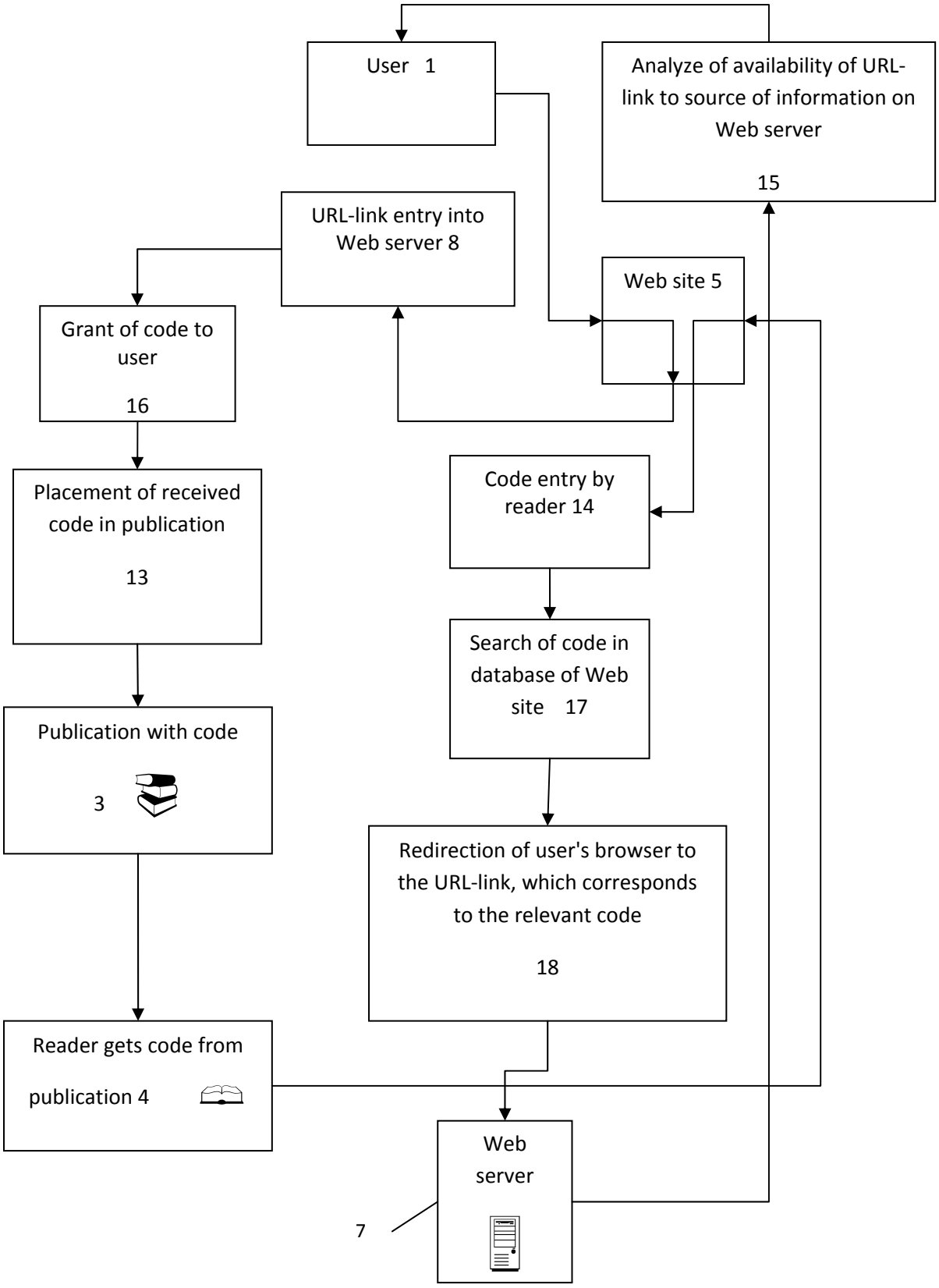
User 1
Analyze of availability of URL-link to source of information on Web server
15
URL-link entry into Web server 8
Web site 5
Grant of code to user
16
Placement of received code in publication
13
Code entry by reader 14
Search of code in database of Web site 17
Publication with code
3
Redirection of user's browser to the URL-link, which corresponds to the relevant code
18
Reader gets code from publication 4
Web server
7

Fig. 4

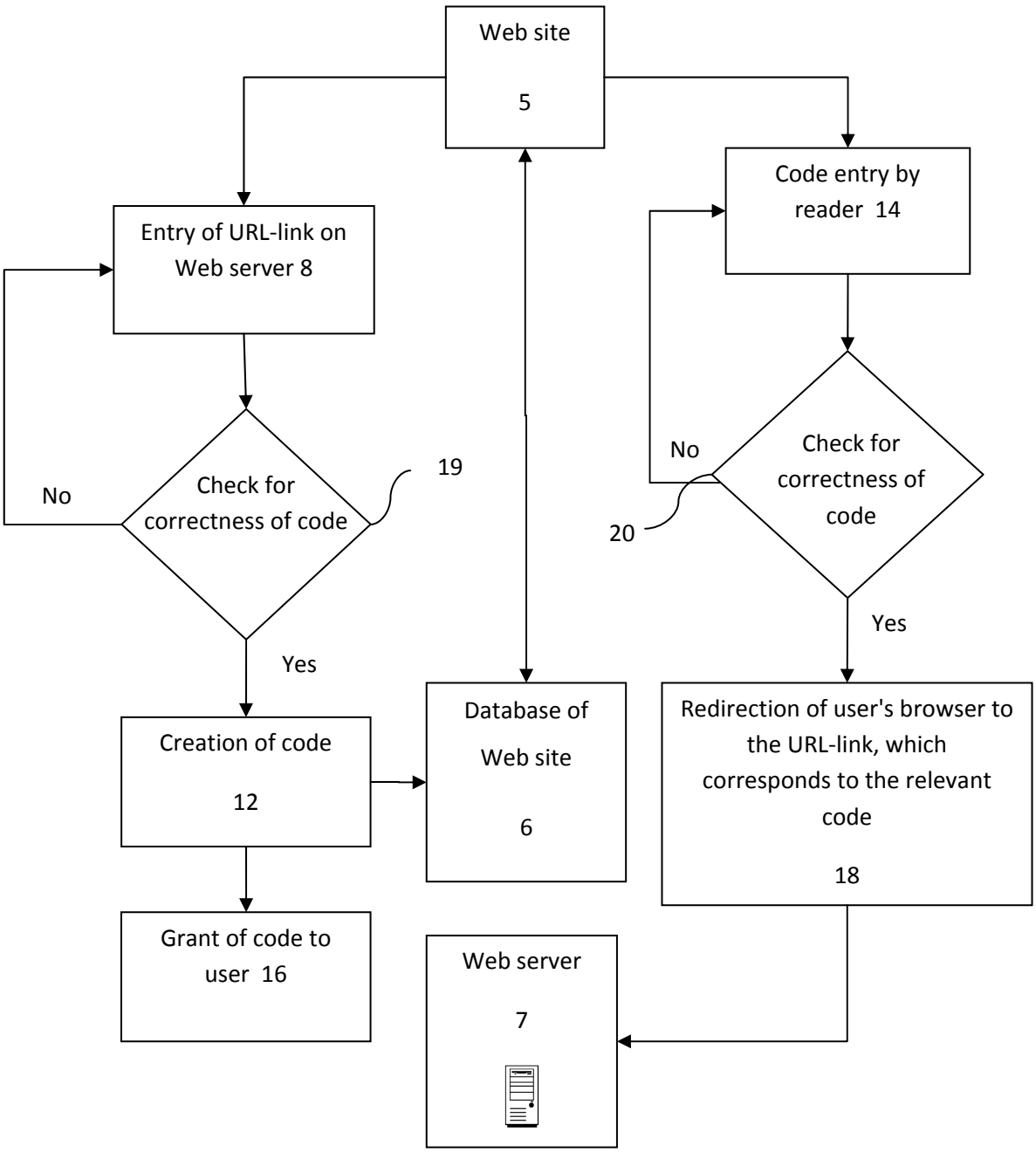
Web site
5
Entry of URL-link on Web server 8
Code entry by reader 14
Check for correctness of code
19
No
Yes
Check for correctness of code
20
No
Yes
Creation of code
12
Database of Web site
6
Redirection of user's browser to the URL-link, which corresponds to the relevant code
18
Grant of code to user 16
Web server
7

Fig. 5

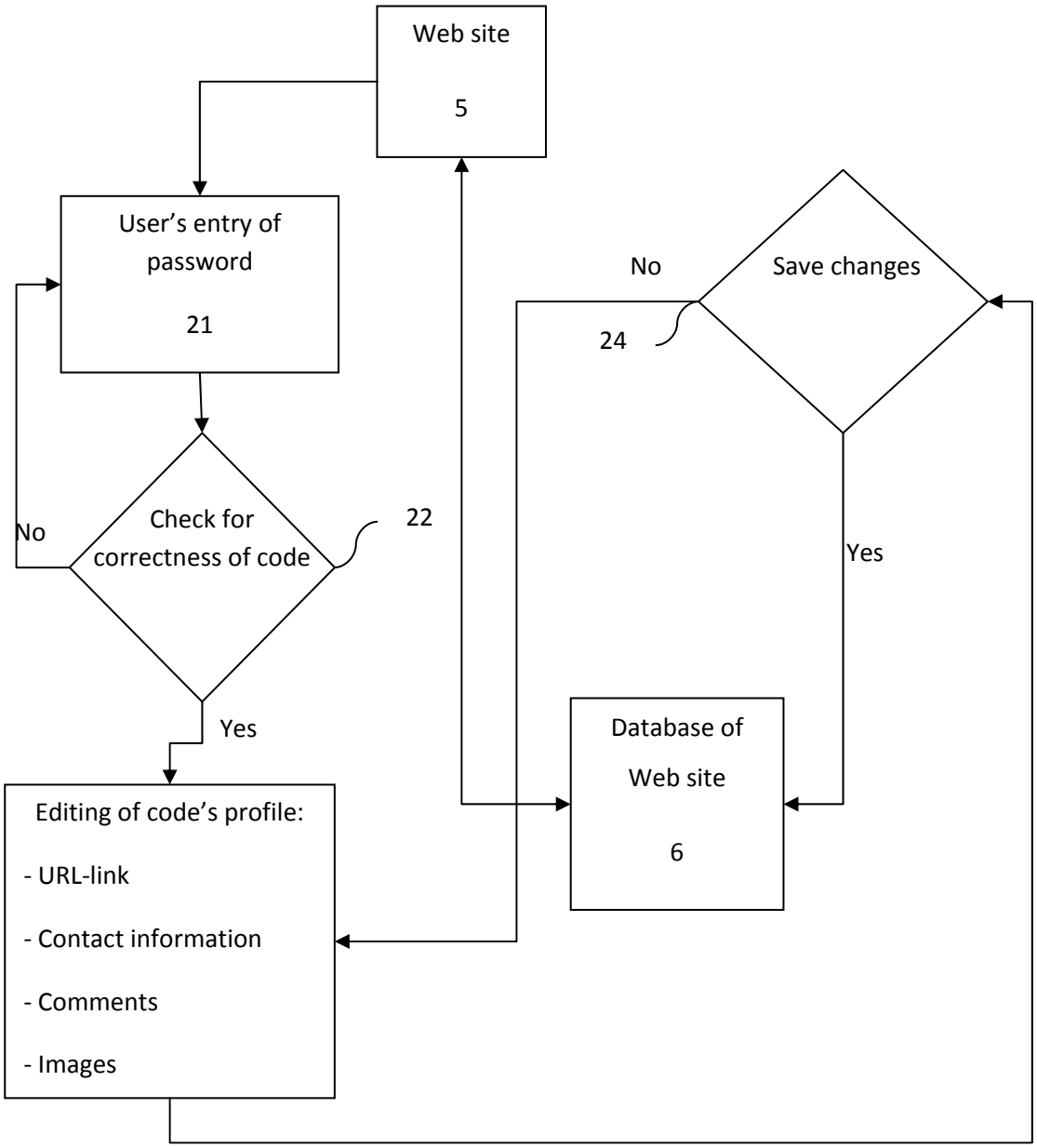
Web site
5
User's entry of password
21
Check for correctness of code
22
No
Yes
Save changes
No
24
Yes
Database of Web site
6
Editing of code's profile:
- URL-link
- Contact information
- Comments
- Images

Fig. 6

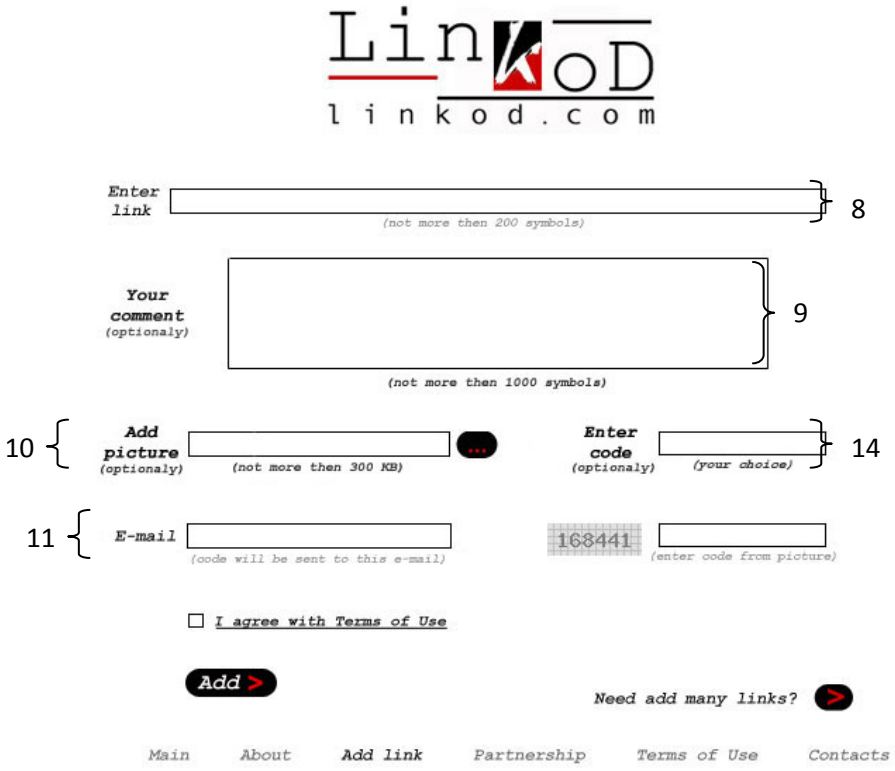
LinKoD
linkod.com
Enter link
(not more then 200 symbols)
8
Your comment (optionaly)
9
(not more then 1000 symbols)
10
Add picture (optionaly)
(not more then 300 KB)
Enter code (optionaly)
(your choice)
14
11
E-mail
(code will be sent to this e-mail)
168441
(enter code from picture)
I agree with Terms of Use
Add >
Need add many links?
Main
About
Add link
Partnership
Terms of Use
Contacts

Fig. 7