Internet Resources Collection and Arrangement
A case of Luo-Dong Senior High School

Po-Han Chiu
Chief of Information
National Luo-Dong Senior High School
Taiwan(R.O.C)

Traditionally, a library is regarded as a place to collect, arrange and distribute information. However, librarians have no choice but to start to emphases the use of internet resources vis-à-vis the rapid growing of Internet and its spreading users. This phenomenon is especially evident in those schools which focus on research teaching, where teachers and students highly require the academic information. These schools always demand the good quality of resources in their libraries. Libraries equipped with internet resources have been set up comprehensively in recent years, users can search for valuable and useful web links from the main pages of their libraries. Librarians are unlikely to know every subject in every domain, it is therefore a heavy task for them to collect good internet resources, not even mention the relative maintenance and update work. The motivation of the idea that "students collect and make by themselves the top internet resources" is hence come up to my mind.

Chapter 1 Research motivation

Along with the development of network, the information acquisition has been extending from the library to internet. Every website on the internet can be regarded as a book, except for the arrangement part executed by the librarians in the traditional library. It is, however, a heavy task to search for a suitable "book" for oneself in the endless internet world. The idea to select "monthly good websites" such as we do in every library for books is hence come to the author's mind. The only problem is that websites are not like books, they are not registered in the "global database", nor do they have "registered numbers". Some websites don't even leave a record from their birth to the death. All these deepen the difficulty to find out good websites.

Traditionally, good websites are recommended by teachers or experts who surf frequently on the internet for their own needs. Neither of the two is efficient for the

collection of good websites. Therefore, the author intends to figure out an approach for students to search good sites.

The math-physic elite students in Luo-Don high school are the author's researching subjects. They are asked to precede the so called "capability of management" program, a training for redacting research report. Students can choose a topic by themselves and then search for relative information on the internet. If the search result is an article in a website for example, they would be asked to backward to the front page of the site and evaluate it within 5 to 10 minutes. Finally they note down some elementary information of the site and make a summery.

The experiment is successfully accomplished with the collection of "top one hundred good scientific sites", which is referred to teachers for their teaching needs and for updating their website lists. If we add a hyperlink under the website name, it would make them like books with titles in a bookstore, how attracting! The author continues to maintain the database by filtering the domain of the resources. Once the database grows, the author then classifies the resources by "Chinese book classification method". Besides, students can choose appropriately their favorite websites through the aide of volunteers of the library, such as the successful example of Web 2.0. Website address can be modified, whither it is a permanent "anchor point" or not. People can still search out the original website address from the server's temporary saved documents before its address is updated. It is hence significant to keep the maintenance of a website. In the other hand, the above work about the website searching is updated with the annual student enrollment. Our "recommendation of good sites" is unique since it is done by the efforts of students!

Objectives:

1. To collect recommended websites from the relative research reports redacted by students.
2. To design an internet resource evaluating system.
3. To design a website from the match of internet programming language and database so as to allow students to maintain the lists of internet resources.

Chapter 2 Literature review

1.The criteria of internet resource evaluation

We can find a lot of on line literatures concerned about the criteria of internet resource evaluation. These criteria are suggested either from scholars or from websites; some are even appeared in university libraries' websites.

(1) General literature review

Don E. Descy suggests eleven criteria to evaluate internet resources: (a) author (b) webmaster (c) website (d) publishing news (e) objective (f) publishing date (g) content (h) objects (i) information range (j) style of redaction (k) divers (note 1)

Alastair G. Smith proposes 7 big sections (with totally 26 items) as criteria after analyzing the relative literatures. They are "range", "content", "image and multimedia design", "objective", "website critics", "efficiency", and "costs". Among these 26 criteria, he figures out furthermore that there are top five criteria most emphasized: "image and multimedia design", "structure and framework", "currency", "content", and "the authority of authors". (note 2)

Karen R. Diaz otherwise presents his seven criteria: (a) function (b) website design (c) content (d) currency (e) expertise and efficiency (f) the power of searching engine (g) the total value of websites. (note 3)

(2) Website critics on internet resources

The Argus Clearinghouse is reputed as one of the best website on its critics of internet resources. It evaluates the relative resources by the basis of five criteria, and a star is given if the resources meet the demand of each criterion, with totally five stars eventually. These five criteria are (note 4):

(a) Explanation of resources: this concern about content explanation, index reference, frequency of website updating, serving objects, performance of hardware etc (objective criteria).
(b) Evaluation of resources: this includes quality of contents, authority of authors, and efficiency of operation (subjective criteria).
(c) Design of index reference: there are image designs, page layouts, and searching engines.
(d) Organization: this concern about organization of subjects, users, time, country etc.
(e) Metadata: this includes authors, objectives, updating time, allocation of resources, responses of users and contacts.

The critics of Infofilter Projet talk about authority, content, organization, currency, searching function, image design and innovation of media application (note 5). There are

even some special information on technique, information of classification and some relative internet references in the section of index.

The database of OCLC ranges from the record of Intercat, the resource of OCLC itself, Website critics to library and government websites. There criteria are: (note 6)

(a) Concreteness: authority of the information, reputation of authors, background of sponsors.
(b) Currency: maintenance of sites and update of information.
(c) Endurance: if the information stands up for a long while or is it abandoned quickly.
(d) Importance: is the information used or recommended largely by libraries.

The criteria of Internet Scout Project (note 7):

(a) Content: coverage, objective, accuracy, service, and information update.
(b) Authority: is the information redacted by authors with authority.
(c) Information maintenance: is the information often updated.
(d) Performance: organization, website design, information searching, speed of document downloading, and equipment (hardware and software).
(e) Acquisition of information: are the hyperlinks offered in the sites usable.
(f) Costs: is the internet resource free to use or charged (charged resources are usually less supported by internet users).

2. Internet resource evaluating form

To facilitate students to evaluate internet resources, we then design a form for students to use. The form contains 6 sections, 27 items for evaluation, which is illustrated as following:

Item	question	result
Content	Total point:	
1. coverage	Are subjects clearly expressed？	☐
2. completeness	Is the content under construction? Is any important internet resource ignored?	☐
3. accuracy	Is the content faked? Is it updated frequently? URL?	☐
4. currency	Date of establishment? Date of modification? The data-collection period? The frequency of update?	☐
5. depth	Does the content offer information in detail?	☐
6. logical arrangement	Is the content well-arranged? Is the content well-organized?	☐
7. objectivity	Is the content objective? (no ethic, sexual or provoking remarks）? Is it commercialized?	☐

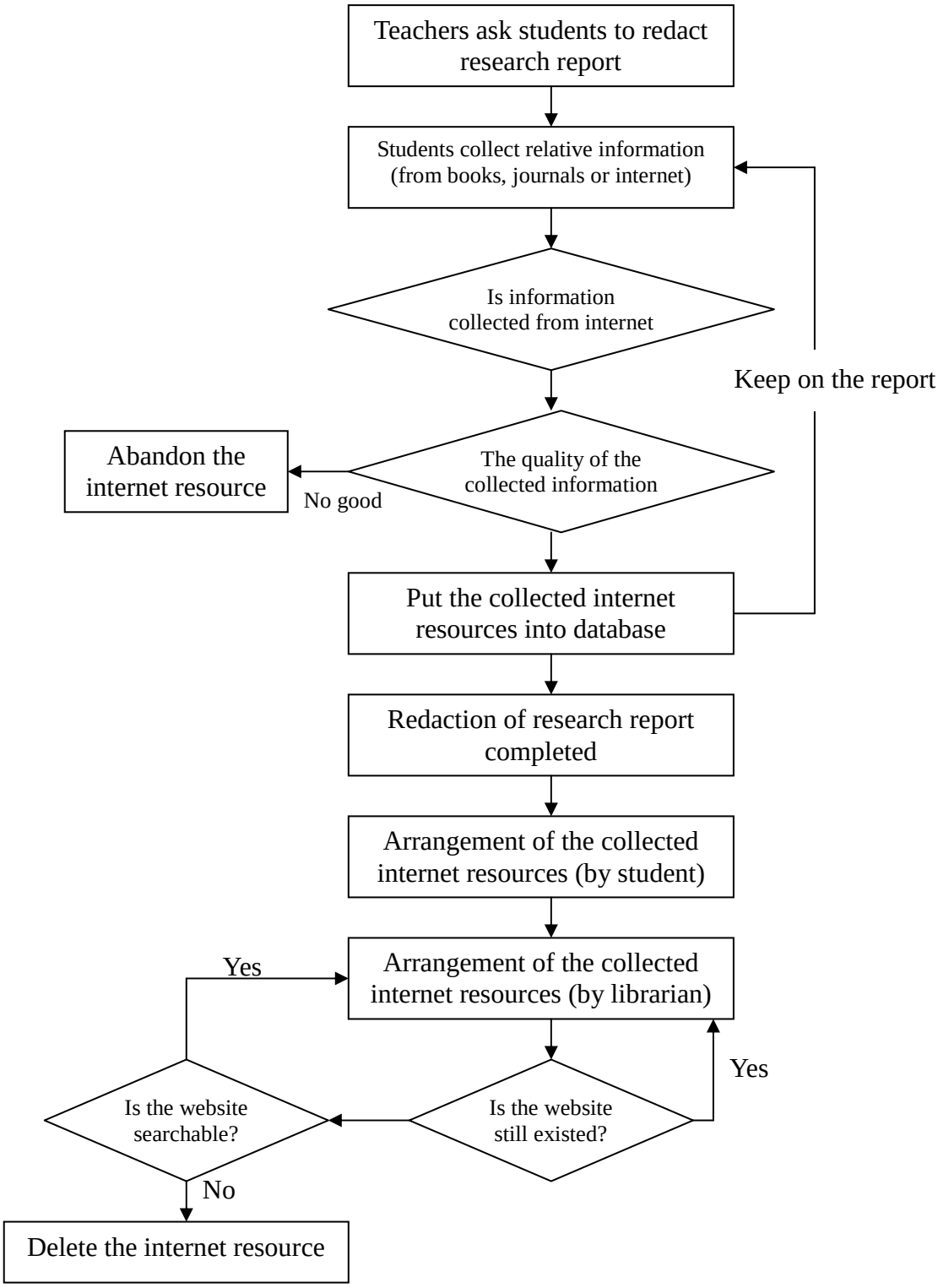
8. necessity	Is there similar information in other sites?	☐
9. utility	Is the information offered valuable?	☐
Authority	Total result:	
1. authors	Are the authors well known? Does the site introduce the background of the authors?	☐
2. organization	Are the sponsors well-known? How to prove the expertise of the organization? Does the site introduce the background of the organization?	☐
3. methods	Does the site explain its research methods?	☐
4. contacts	Does the site offer the contacting way?	☐
System Performance	Total point:	
1. speed	Is the connecting speed satisfying?	☐
2. stability	Does it disconnect, shut down or IP changes often?	☐
3. accessibility	Is the site easy to connect with? Is file format formalized? Does the site offer appropriate software for downloading documents?	☐
4. security	Are records of users protected?	☐
5. functions	Dose the site have searching engine? Is the technique abused?	☐
Design	Total point:	
1. layout	Are words and images in the page layouts readable? Can every pages links to front page? Are the pages interesting?	☐
2. texts	Are texts well adapted?	☐
3. artistic design	Are images well adjusted and well explained?	☐
4. layers	Are information easy browsed? Is information in the page overloaded?	☐
5. hyperlinks	Are hyperlinks well established with IP?	☐
6. interactivity	Is there interactive design in the site?	☐
7. special effects	Are there special effects for reading fun?	☐
User Interface	Total point:	
1. online help	Is there supplementary explication?	☐
2. type of interface	Dose the site support only-text interface or other type of browser?	☐
3. languages	Does the site support multiple languages?	☐
Other	Total point:	
1. intellectual property	Does the content of the site plagiarize from other sites or	☐

	does it declare the copy right?	
2. quotation	Are the quotations well used? Is information complete enough with source?	☐
3. charge	Is the site charged? How does it charge?	☐
	Total point:	

Note: Pou, Shiao-Dieh(卜小蝶), Internet resources evaluation
http://lis.shu.edu.tw/htpu/nir/evaluate/evaluate.htm

Chapter 3 Experiment

The procedure of the experiment is illustrated as following:



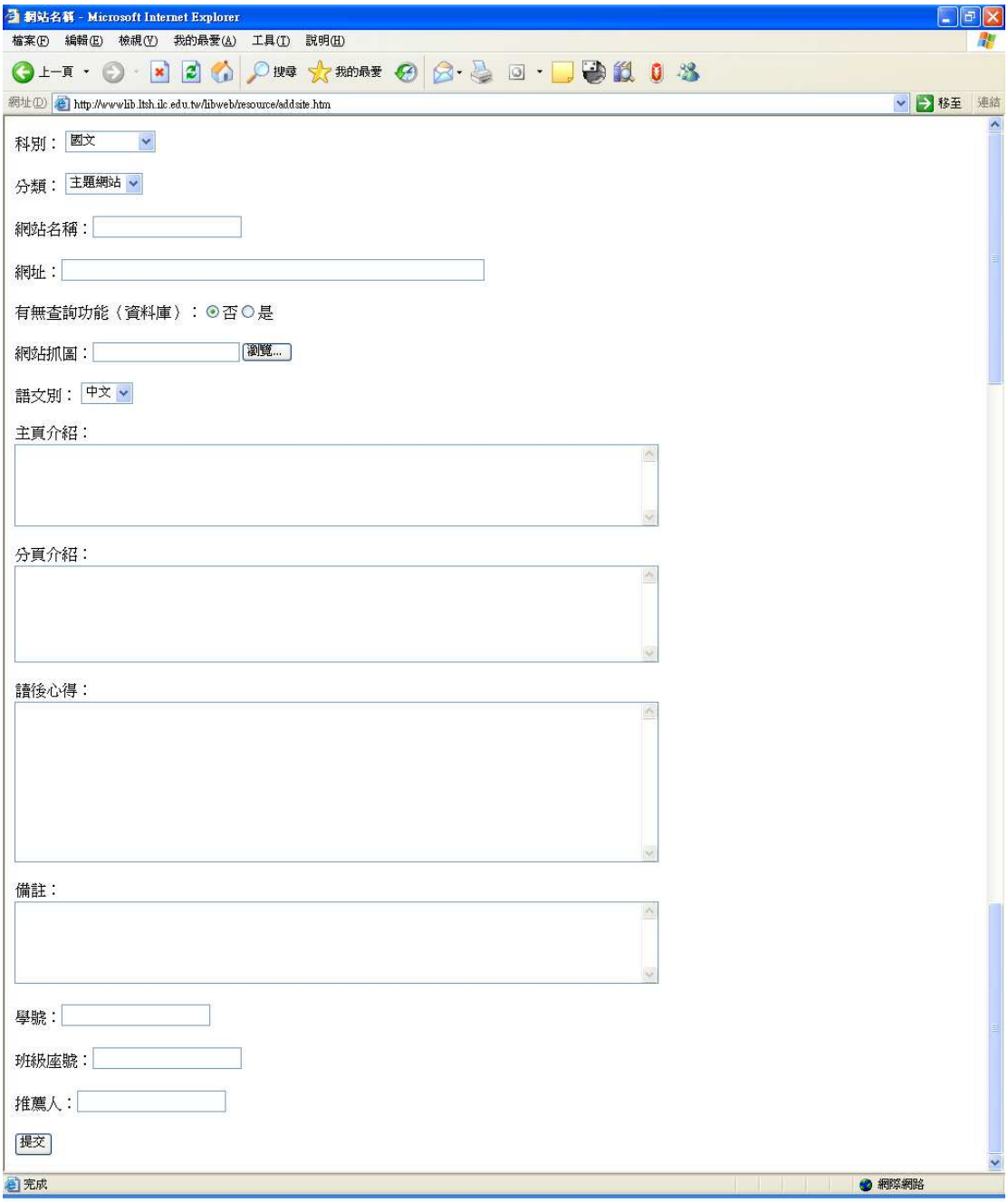
Students who quote articles from websites are asked to return back to the front page and to evaluate the site, and finally they summarize a report by noting the basic information of the site. For example, a student finds out an article from the site http://www.sciam.com.tw/news/newsshow.asp?FDocNo=978&CL=63 , he is then asked to check the front page of the site, which is http://www.sciam.com.tw/. It is the website of "scientific magazine." The website offers free full text review for all of its publishing articles, which is quite suitable for high school students to read. Eventually the student put the website into the database designed by the author.

As for the tasks of library volunteers, there are:

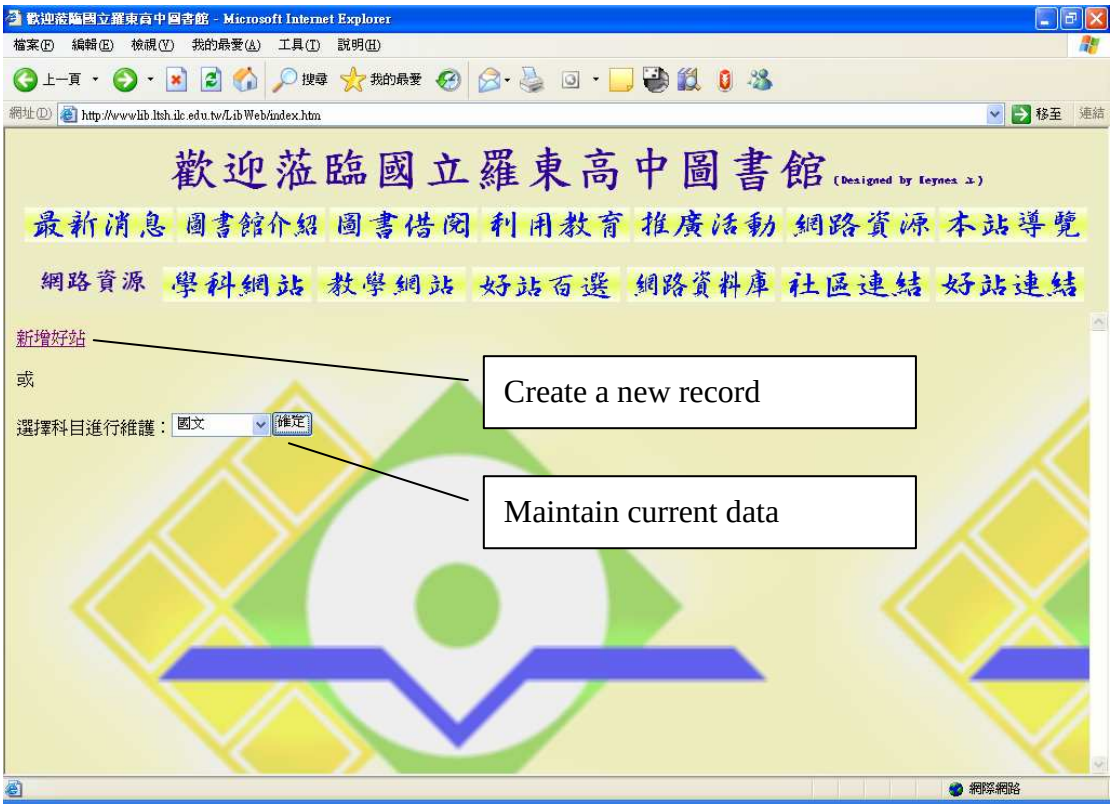
a. Check if the website still exists? If not, try to search for the original site so as to understand if it's just the change of address or it's abandoned. In the latter case, volunteers should delete this internet resource.
b. Review the website and update the introduction of the site.

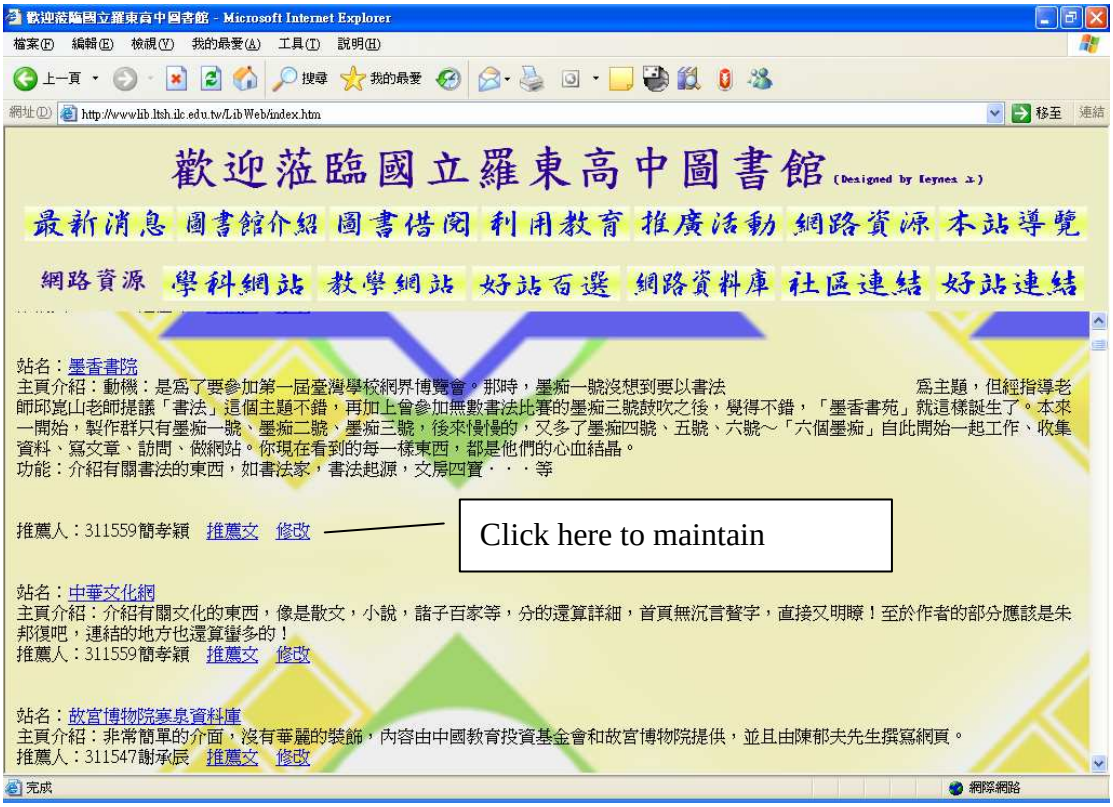
Chapter 4 Result

Our website is designed by using Microsoft ASP programming language. Our database is maintained by the following columns: subject, classification, website name, website address, the images of front pages, languages, the introduction of front pages, the introduction of pages, the reflection after reading (the pages), notes, student number, classroom seat number, recommender etc. Students should fill in the form illustrated as below:

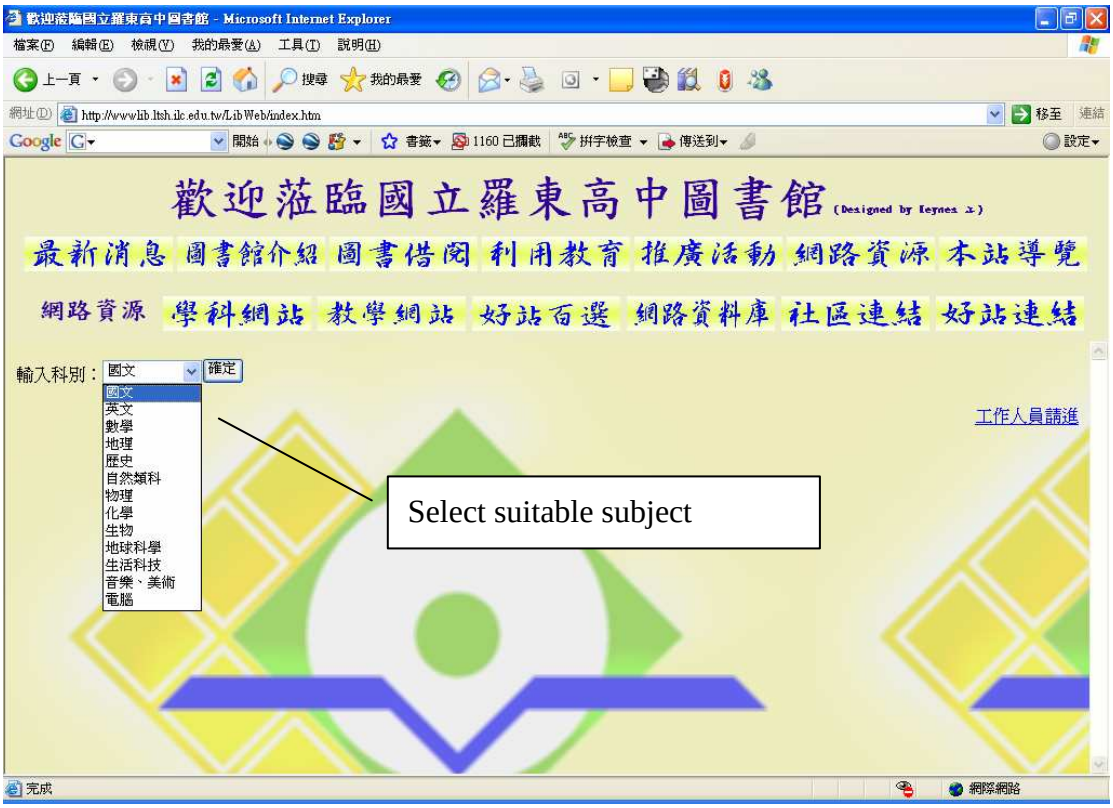


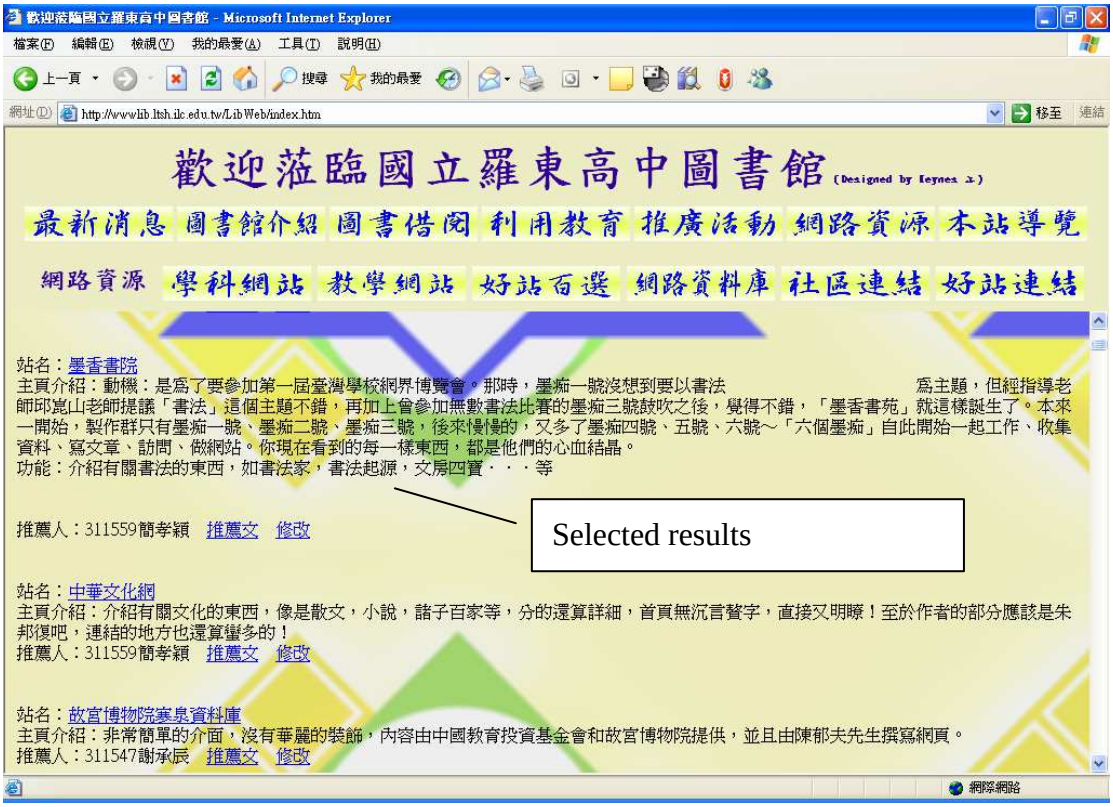
The procedure of modification is suggested in the site:





Readers can choose their favorite subject from “Select”





Chapter 5 Conclusion and suggestion

The method of establishing top internet resources from the research report of students is a break through for our library. Besides, the internet resources are well maintained and updated by the efforts of library volunteers.

On the other hand, it is a burden for librarians to set up a platform for internet resource arrangement because they should understand how to design websites, database, programming languages … etc. With the development of information technology functions, librarian should also keep on updating the programs. Still, “a program does it by oneself” can most meet the demands of users.

There is already someone suggesting the concept of content management which allows End User (usually authors personally) to modify the contents. There are articles with only texts or with highlights or other resources (such as images). Program system demands some rules for the layout of article; this means that the layout pattern is separated from the content, which is more flexible for modification. Xoops and Blog are two main systems to achieve the above objective. It is still under estimation if they can apply in our research.

Finally, our next research will focus on the influence of internet resources to learning quality as well as efficiency for teachers and students.

References

Don E. D. *Evaluation Internet* .Retrieved from http://www.lme.mankata.msus.edu/ded/tt/19eval.html>.

Alastair G.S.*Testingthe Surf: Criteria for Evaluating Internet Information* .Retrieved from http://info.lib.uh.edu/pr/v8/n3/smith8n3.html.

Karen R. D.(1999).Off the Shelf and Onto the Web: The Best of The Best Ranking and Rating Digital Reference Resources.*Reference & User Services Quarterly* ,39(1) , 20

Rating System . Retrieved from http://www.clearinghouse.net/ratings.html

Infofilter . Retrieved from http://www.usc.edu/users/help/flick/Infofilter/

NetFirst Collection Development Policy. Retrieved from http://www.oclc.org/oclc/netfirst/nf960821.htm

Scout Report Selection Criteria. Retrieved from http://scout.cs.wisc.edu/report/sr/criteria.html

Pou, S.-D.Internet resources evaluation. Retrieved from http://lis.shu.edu.tw/htpu/nir/evaluate/evaluate.htm

Author Note:

Chiu, Po-Han (邱柏翰), was born on August 24, 1976 in Taipei, Taiwan, Republic of China. He received the B.S. degree in Management Information System from National Chengchi University in 1999 and the M.S. degree in Information and Computer Education from National Taiwan Normal University in 2004. He has been a second lieutenant of R.O.C from 1999 to 2001. From 2004, He works as a computer teacher and teacher librarian in Lo-tung Senior High School. Last year, he presented the paper “The Design and Development of an Online Knowledge Base for Librarians” in 2005 IASL conference, Hong Kong. In 2006 he presented the paper “The Design and Development of a Virtual Field Trip System”.