

**AN INVESTIGATION OF THE MANAGEMENT AND MAINTENANCE OF AN
ONLINE SUBJECT DIRECTORY WITH PARTICULAR REFERENCE TO THE
SOUTH AFRICAN LITERATURE ONLINE RESOURCE.**

Portia Rakoma

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By

PAMELA PORTIA THEMBEKA RAKOMA

**Dissertation submitted in partial compliance with the requirements for the Master's
Degree in Technology: Library and Information Studies, in the Faculty of
Commerce at the Durban Institute of Technology.**

I, Pamela Portia Thembeke Rakoma, declare that this dissertation represents my own work, both in conception and execution.

Signature of Candidate

Date of Signature

APPROVED FOR FINAL SUBMISSION

Signature of Supervisor

Date of Signature

Supervisor: Prof. G. Stewart (D.Litt)

DEDICATION

To my Mom, you have taught me amazing strength and unconditional love
I thank you for all your support and love. Your sacrifices have not gone unnoticed.

My dear departed father Moses Rakoma who did not live to see my achievements.

To my sister, I am blessed to have you in my life.

I dedicate this work to my daughter, Moshibudi Bertha Nonkululeko Rakoma.

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ABSTRACT

The aim of the study was to investigate management and maintenance procedures that were used by other sites and how these could be used as a basis for formulating management and maintenance procedures for the SALO subject directory. The study consisted of three major parts: an expository study of primary and secondary material related to web-based subject directories; an evaluative survey in which respondents were requested to look at the SALO subject directory and evaluate it according to evaluation criteria that were developed for this study; and the development of a manual that included management and maintenance procedures specifically for the SALO subject directory.

Internet resources whether they be subject directories or commercial websites need to be maintained and managed in order to keep the information posted as current as possible. For management and maintenance procedures to be of benefit to the creators as well as the visitors to the site, there needs to a clearly defined set of standards and procedures for keeping the site in order. Students, researchers, lecturers as well as anybody who has information needs is able to search for a variety of information from a number of websites using Internet resources. Information communication technology allows people to communicate as well as disseminate information rapidly. Anyone can publish anything on the Internet and hence a number of writers support the belief that before a user can use any information on the Internet, the user needs to be able to evaluate Internet resources for their accuracy, authorship etc. A number of research studies have been conducted in schools and institutions of higher learning to engage students in the evaluation process.

Questionnaires were posted to 35 subject librarians and 13 responded.

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CHAPTER ONE: INTRODUCTION

This study is an investigation into the management and maintenance of an online subject directory, with particular reference to the South African Literature Online (SALO) resource. Every day millions of people around the world use their computers to access information on the Internet and the World Wide Web. They search for and retrieve information on all sorts of topics in a wide variety of areas. The information can appear in a variety of digital formats, such as text, images, audio or video.

Individuals, companies, research laboratories, libraries, news organizations, television networks, and governments all make resources available. People communicate with each other using electronic mail; they share information and make commercial and business transactions. All this activity is possible because tens of thousands of networks are connected to the Internet and exchange information in the same basic way. The World Wide Web (WWW) is part of the Internet, but it is not merely a collection of networks. Rather, it is the information that is connected or linked in a sort of web. Never before has so much information from such a wide variety of sources and in so many formats been available to the public.

1.1 STATEMENT OF THE PROBLEM

What are the key requirements for the successful management and maintenance of an online subject directory, with particular reference to South African Literature Online (hereafter referred to as SALO)?

1.2 CRITICAL QUESTIONS ADDRESSED IN THE STUDY

In order to be able to develop a policy and procedures relating to the management and maintenance of the SALO site, other sites were accessed and analysed to determine how and what their policies were regarding the maintenance and management of their sites. This in turn influenced the identification of the key criteria for a successful online subject directory, and pointed to current management procedures for sites.

The critical questions that the research sought to answer were:

- 1.2.1 What management and maintenance solutions have other subject directories implemented?
- 1.2.2 What are the generally accepted criteria for a successful online subject directory?
- 1.2.3 To what extent does the (SALO) resource match up to these criteria?
- 1.2.4 How can a sustainable management and maintenance programme be established for SALO?

1.3 THE HYPOTHESIS

Stated as an hypothesis, the key assumption was that criteria for the successful management and maintenance of an online subject directory may be determined by analysis of best practice reported by other site managers, an evaluation of the present site and the production of a manual for the site.

1.4 DEFINITIONS OF TERMS

The following terms are used in the discussion that follows. A glossary is therefore provided.

FTP: “File Transfer Protocol is a program that lets you transfer data from an Internet server to your computer” (McGuire, et al. 1997:230).

HTML: “HyperText Markup Language: the codes and formatting instructions for interactive online Internet documents. These documents can contain hypertext, graphics, and multimedia elements, including sound and video” (McGuire, et al. 1997:231).

Internet: McGuire, et al. (1997:231) define Internet as “an interconnection of thousands of separate networks worldwide, originally developed by the U.S. federal

government to link government agencies with colleges and universities. Internet's real expansion started recently with the addition of thousands of companies and millions of individuals who use graphical browsers to access information and exchange messages".

Online: This concept is explained by Behrens (2000: 9) as link with an information source in electronic form that is loaded onto a computerized system.

SALO: South African Literature Online is an abbreviation that will be used in the text to refer to the directory of South African Literature. It is the web-based subject directory that is the focus of this research project.

SITE: a web page or website (see also World Wide Web, below).

Subject Directory: (also referred to as "online subject directory" or "web index")

Subject directories are easy "search tools to use as they have been created to give structure to information resources. Each click on blue text takes you in closer to the subject that you seek. Yahoo! is one of the most popular subject directories available. The subject structure of these directories is created by people and some are kept up to date by humans who create indexes of sites".

(<http://www.rpl.regina.sk.ca/desk/recsearch.shtml>)

URL: This acronym stands for uniform resource locator which is an assigned address used to identify one host from the other. The informs the user of the protocol being used, the name of the host computer on which the file can be found and the directory information where the file can be found. (Sachs and Stair, 1996:64)

Web Master: the manager, owner or a person responsible for maintaining a web site or a subject directory.

Web Wide Web: Garlock and Pionteck (1997: 10) describe the WWW as a digital networked information system. It consists of electronic files and documents tagged

with codes from a standard set of guidelines known as “Hypertext Markup Language” more commonly referred to as HTML. These marked-up documents incorporate hypertext links that allow users to move easily to other points in a document, or to entirely different documents, by selecting a highlighted phrase or object. Personal WWW documents are commonly referred to as “homepages” or sometimes “web pages”. They are created by individuals or organizations to present their own information or to serve as collections of other Internet resources.

1.5 IMPORTANCE OF THE STUDY

Since the SALO site was made available online in 2001 updates have been sporadic and no consistent maintenance procedure has been adhered to. There are no guidelines as to how the site should be managed and by whom although a full account of the development of the site lays out clearly the intentions and overall aims of the resource (see Stewart et al. 2001). Therefore, a survey of other sites and an evaluation of the SALO site was undertaken to enable the formation of guidelines and procedures for the SALO subject directory. Management and maintenance of any site is the most crucial issue that needs to be in place for the viability of the site.

1.6 THE STRUCTURE OF THE THESIS

Chapter 2 reviews the literature on management and maintenance of online subject directories as well as generally accepted criteria for evaluating Internet resources. Management and maintenance procedures and guidelines as implemented by other web site managers are discussed. Previous findings of other researchers concentrating on evaluation criteria are discussed.

Chapter 3 discusses in detail the research methodology that was used during this study. It also gives an analysis of how the sample frame was decided upon and presents the design of the questionnaire that was used for the evaluation of the subject directory.

Chapter 4 discusses the results of the investigation of the web subject directory design criteria, and presents an analysis of the findings of the evaluation survey.

Chapter 5 draws together the major conclusions of the investigation into a set of design management and maintenance criteria in a form of a web master manual.

Chapter 6 considers the way ahead for the SALO subject directory, and its applicability as a tool for selective online information provision.

Chapter 7 provides the manual for future management and maintenance procedures for the SALO subject directory.

1.7 CONCLUSION

This chapter provided a detailed analysis of the importance of the study as well as a discussion of the critical questions pertaining to this study and the different chapters that will form this study.

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

There is a considerable range of literature pertaining to the management of web sites but not necessarily specific to subject directories. Some of the literature that provides valuable criteria on subject directories is reviewed here. The literature on web site management and maintenance can be used to understand how, in particular the SALO site can be managed and maintained.

The development of the SALO site is described by Stewart et al in their paper “Renaissance in Cyberspace: Creating the SA Literature Subject Directory” (2001) where a detailed overview is provided. The development of the SALO subject directory was made possible by a collaborative research initiative between the School of Languages at the University of Durban-Westville and the department of Library and Information Studies at the ML Sultan Technikon (since incorporated into the new Durban Institute of Technology – DIT). The aim of the study was to create an authoritative and comprehensive indexed reference of online South African literature resources in all languages and the development and archiving of South African literature using new information and communication technology (ICT). In the process a literature review pertaining to planning and structuring of online subject directories was completed. An evaluative comparison of existing online subject directories and traditional library classification system was conducted. Searches were performed to retrieve existing South African literature URLs. At present there is a pilot subject directory that has been published on the Internet (see <http://salitac.za/cssal.html>).

2.2 DEFINITION AND EXAMPLES OF SUBJECT DIRECTORIES

A subject directory is defined as ‘a service that offers a collection of links to Internet resources submitted by site creators or evaluators and organized into subject categories’ (Cohen, L. 2002). These directories use selection criteria for choosing links to be included. In the case of SALO, the links that were chosen as the basis of the site were all the links dealing with South African Literature. There are at least two

types of subject directories: specialized or academic directories and commercial portals. An example of a specialized directory is: INFOMINE: scholarly Internet resource collections. This is a virtual library of Internet resources relevant to faculty, students, and research staff at the university level. Included are databases, electronic books, electronic journals, and many other types of information. This resource was built by librarians from a number of universities and colleges such as the University of California, California State University and others. This site can be accessed at <http://infomine.ucr.edu/>.

Another authoritative academic directory is the Librarians' Index to the Internet <http://www.lii.org/> (see Figure 1, below). As can be seen, this is an annotated subject directory of Internet resources.

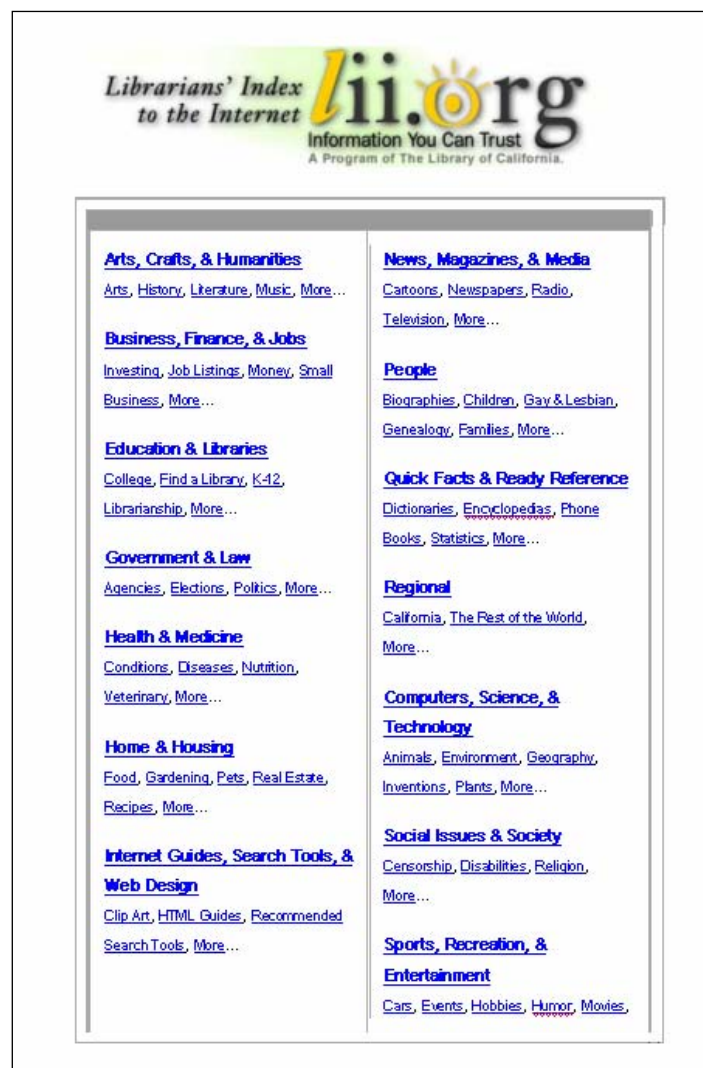


Figure 1: Librarians' Index to the Internet

These categories have been selected and evaluated by librarians for their usefulness to users of public libraries. This directory is a program of the Library of California. The Director of the Lii is Karen G. Scheider and other members of staff include catalogers, project directors and a computer programmer. With this kind of staff, it is no wonder that the Lii site is recommended and used as an authoritative model for other sites. The site boasts approximately one hundred contributors from libraries in California and Washington State. Before a site is entered into the Lii it is reviewed at least twice, sometimes four times in order check if it really meets the Lii criteria for inclusion. These criteria will be discussed under “Evaluation Criteria”. The site is linked to nearly thirty thousand Web sites and it has been in operation since 1990. This subject directory is one of the sites that was used in the development of the SALO subject directory. In order for the arrangement of the SALO subject directory to be decided upon, a variety of materials were used to come up with a commonly acceptable arrangement for the subject directory. It was discovered that the Librarians’ Index to the Internet uses an alphabetical method of arrangement.



Figure 2: Yahoo!

Other subject directories, like Yahoo! (above) confirmed that one common factor around which subject directories were developed is the alphabetical arrangement of entries. Yahoo! is an example of a commercial portal but also included is a Web site directory that is alphabetically arranged. As explained, Yahoo! is one of the sites that were accessed in the development of the prototype SALO site in order to gain an insight as to what is an acceptable arrangement for subject directories. Under the Web site directory, categories catered for by Yahoo! Are included and are arranged according to subjects. For the development of the SALO subject directory searches were done under the “Arts and Humanities”, and the “Literature” sub-directory was used to locate information for inclusion in the SALO subject directory.

BUBL Link (<http://bubl.ac.za.uk/link>) is a catalogue of selected Internet resources covering all academic subject areas catalogued according to the principles of the Dewey decimal classification (DDC) system. This catalogue is the oldest and most extensive academic directory on the Web. It was developed by the United Kingdom National Information Service. The items that are included on this subject directory are selected, evaluated, catalogued and described i.e. citations to each entry are given. Links are checked and fixed each month. LINK stands for Libraries of Networked Knowledge and BUBL stands for Bulletin Board of Libraries.

Selected Internet resources covering all academic subject areas: BUBL/5: 15	
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	
General Reference books, data, images, journals, maps	Engineering and Technology aeronautics, electronics, energy, robotics
Creative Arts art, design, media, music, photography	Health Studies medicine, nursing, nutrition, pharmacy
Humanities archaeology, history, philosophy, religion	Life Sciences agriculture, biology, ecology, genetics, zoology
Language, Literature and Culture English, ethnography, linguistics, writing	Mathematics and Computing internet, programming, viruses, statistics

Figure 3: BUBL/5: 15

Another service of BUBL Link is the BUBL /5:15 and it provides an alternative interface to the catalogue based on subject terms rather than the DDC system. Subject terms used in BUBL LINK 5:15 were originally based on the Library of Congress Subject Heading List (LCSH), but have been customized and expanded to suit the

content of the service. The aim of the service “is to make it easy to locate Internet information about a large number of subjects”. <http://bubl.ac.uk>

The catalogue currently holds over 11 000 resources.

Other types of subject directories are known as “special or academic subject” and these types in most cases are created by librarians or subject experts. Librarians are well read as far as the arrangement of materials is concerned.

2.3 DEFINING SEARCH ENGINES

Unlike subject directories (like SALO or the LII) search engines do not present the user with hierarchical categories. A search engine can be defined as a software program that locates and retrieves Web documents in answering the user’s search query. Since the Web is not indexed, (like the back-of-the-book index), a user will normally use a search engine. While a subject directory presents the user with a finite, indexed set of references or links, a search engine provides an open-ended free text search option that searches the entire World Wide Web. There are different types of search engines available for instance, AltaVista, Hotbot, Lycos and Web Crawler, (Gash, 2000:71).

2.4 ADVANTAGES OF SEARCHING SUBJECT DIRECTORIES

Callery, (1996) states that when one uses subject directories as opposed to search engines, there will be a high relevancy of items retrieved therefore, minimizing faulty hits that are irrelevant to the searcher.

The searcher is not forced to know the synonyms of a search term in order to bring up a topic.

The Mundt Library Online site (<http://www.departments.dsu/library/caetegory.html>) of the Dakota State University, Madison adds that, by browsing or searching a subject directory one is provided an effective alternative to using search engines when

researching broad topics. Subject directories because they include fewer items, will generally yield fewer items.

Subject directories are designed to be browsable i.e. allowing users to move from link to link to get from a broad subject category to narrower and narrower subcategories.

Most subject directories have a “search” feature which saves the user from navigating from category to subcategory to sub-sub category etc. within the directory. The search feature allows the user to jump directory to the relevant topic area in the directory.

2.5 MANAGEMENT AND MAINTENANCE OF SUBJECT DIRECTORIES

When the previous project about designing an online subject directory was researched, (the current researcher was part of the team of students that designed the SALO subject directory), there was adequate information on how should one go about designing a website, be it for a library or one’s own personal homepage. There is much literature available that gives step-by-step designing options. However, there is not much written about how the created website or subject directory should be managed and maintained. The literature that was consulted did not give a clear definition of what management and maintenance involves.

A general definition of management is that, it is the ‘process of planning, organizing, leading and controlling the efforts of organization members to achieve stated organizational goals’ Freeman (1990:6). This definition is then not applicable to management of websites because there are no organizational members or an organization involved. The only part of the definition that fits into this study is planning, because planning involves setting out goals and objectives that will be one of the outputs of this research. There will be clearly defined procedures and guidelines with regard to management and maintenance of the SALO subject directory. There is explanation given of what maintenance involves. It is clear that maintenance is to do with keeping the site up to date as well as continuously managing content. Managing and maintaining a subject directory deals more with the job that is done by a Web Manager as this is the person who is delegated to make changes to the site, keeping

the site fresh with new additions as well as using the File transfer Protocol to upload the necessary changes into the Internet site.

Ensor (1997:212) supports the statement that there is a much literature available when one needs to create a website but little is available that deals with maintaining that which has been created. The author argues that if maintenance procedures are not in place the site might lose respect. Maintenance, he states, is about adding new links and rechecking the site at least twice a month because information on the Internet changes quickly. He also adds that though there are programs that automatically check if the links are still active, a person is still needed to check for links that have been said to be changing. What the author discusses makes this study important in relation to the SALO subject directory because, as stated above, updates to the site have been sporadic and the links really need to be checked. No new information has been added since 2001.

Each page, subject directory or a website on the Internet must have a Web manager whose responsibility amongst others, will be to keep the site in a working condition and increase the number of users who access it for information. Tennant (1996:1) discusses issues of maintaining a web site. The author states that as a Web manager it is important to have written down policies that will govern the site. One of the outputs of this research project will be to come up with a manual for the continuous maintenance of the SALO subject directory. Tennant also states that it is vital to monitor the users of your site by checking their requests and recommendations. He supports what was mentioned earlier by Ensor (1997:212) that links need to be kept up-to-date. Making sure that users are always linking to your site is also important because sometimes you get the message 'page not found' and that can be frustrating if someone wanted to use your service because of its relevance and importance. Tennant also says that a perfect Web manager is someone who keeps himself up to date by reading related works and learning new ideas about what other Webmasters/ Web Managers are doing in their fields. There is nothing as frustrating as knowing that there was a site that you once consulted and when you want it again it does not appear, and Tennant (1996:1) gives two distinct ways of how this could be avoided.

This can be done by referrals or redirects. Referrals is when you refer your users to your new location if your information has moved, and redirects is when you specify the new location so that when a user needs to access your site, they are automatically redirected to your new location. The discussions of the above authors made the researcher aware of what was lacking (about SALO) and made the researcher aware of the importance of this study and how it will be of help to other owners of websites.

In the past, librarians were accustomed to managing card catalogs in their respective libraries. One of the duties of the senior librarians was to check if the filing done by their junior staff was correct. Card catalogs were important sources of information in any library be it an academic or a public library because they showed the whole collection what a library had. They also recorded the status of all material, for example, if a book was lost or missing that was recorded on that book's particular card. These days, librarians manage web sites and other electronic sources of information such as databases, OPAC's etc. Balas (2002:48-50) points out that there are similarities between what librarians used to do when they managed card catalogs and their roles as managers of web sites. Accuracy of the web sites as well as keeping the site up to date are still important parts of a web manager's job. Balas mentions that blind or inactive links should be rectified immediately. He makes a good suggestion that any person who manages a web site needs a crash course in web site management.

Balas' article discusses relevant issues based on web management but it mostly gives authors and sites that he feels will be useful in web site management. Balas (2002:49) quotes Rob Bocher who outlines issues of web site management. Included are questions that need to be asked that help web managers to determine what is it that they want to accomplish from their sites. The researcher will consult this recommended site and it will be discussed later in the project.

The Library Web Manager's Reference Center which is part of the Berkeley Digital Library SUNSITE available at <http://sunsite.berkeley.edu/Web4>, is a resource for any

person who develops and manages a library web site. The researcher found this source particularly relevant with regard to web management and maintenance.

Another source of information discussed by Balas is a site that was developed by librarians in Australia entitled “Managing web resources for persistent access”. It reveals some of the problems one can face when trying to access web pages e.g. broken links. Balas also adds that a person should be responsible for maintaining a site because he says, in order for maintenance to be done properly there should be a person employed with the responsibility of site management and maintenance. At the moment the SALO site does not have a person who is solely responsible for maintenance and managing the site. From the literature that was consulted, it became clear that in order for the SALO subject directory to be a valuable source of information both nationally and internationally, there should be a clear management and maintenance policy and procedure, and a person who will be the site’s web master/web manager.

Balas has divided his article into two parts: “learning web management from librarian colleagues, and web management tips from outside library land.” The author admits that there is a lot that librarians can learn from non-librarians who are also in the field of web management. Balas argues that the “technical aspects, rather than the philosophical issues, of managing a site” can be learned from non-librarians (Balas: 2002:49). For accessing the discussion from the people outside the library, Balas provides sites that one might use in managing a web site.

These references include About.com network that is a site that offers “links to resources on pre-processors that manage data stored in databases, speed and optimization, and content management systems. Novice web managers will benefit from the tutorials on design and other resources on this site” (Balas, J.2002: 50).

A site that focuses on the technical details of site management is Web Design Library of Builder.com. This site “offers links to back-end on how-to’s including tips on using log statistics as a web site management tool. The information on these sites is not for

the beginning web manager, but for those determined to use every technical means at their disposal to improve their web sites” (Balas, 2002:50).

Brandt (2002:44-46) discusses an important and mostly overlooked aspect of management training. He believes that web site management involves different aspects of organizing, troubleshooting, and maintaining software and hardware. It can also involve upgrading and installing operating systems, and developing a search engine or doing usability and design studies, (see Turner, S. 2002:37-39 under Evaluation Criteria). The author further points out elements that may encompass web site management. Amongst many of the points discussed, the researcher noted maintaining and manipulating log files for statistics, constant verification of links, content update, troubleshooting, identifying and resolving problems when applications do not function, uploading and downloading of files, installation and upgrading of applications to ensure that they work with older systems, etc.

The author goes on to explain why training is so important for a web manager. He mentions that sometimes a web master/web mistress will get his/her training from attending conferences, seminars or by reading appropriate manuals or by subscribing to listservs. He believes formal training as well as certification is also important for a web master because with accredited certification one is able to move to new employment when the need arises. He points out that though training is one of the attributes of a good web master, good interpersonal skills and communication skills are also a prerequisite in this field. A web master never works in isolation. He constantly needs to get feedback from the users or other team members for the smooth running of the web site. In large academic libraries the people involved with management and maintenance of web sites usually work as a team and are known as the “web team”. Brandt sums it nicely when he says that “in order for one to be a successful webmaster/web manager one needs to be able to develop content as well as operating systems knowledge in file directory structures. File organization and management is crucial so as to keep a consistent file naming structure to one’s site.”

Since the pilot SALO subject directory was completed in 2001, there has been no systematic maintenance done on the site. One of the reasons is that at the moment there is no one who is fully responsible for maintaining the site. From most of the literature that was consulted during this study, it became clear that for a site to be effective in its objectives, there needs to be a person in charge of implementing management and maintenance procedures. Managing and maintaining a site includes, amongst other things, keeping your links/information up to date. The SALO subject directory consists mainly of links to other sites, therefore frequent updates and checking of active links is critical to the success of the site. Zimmerman (2001) cites research findings that show that 84% of visitors leave sites because of broken links. This is of importance to the SALO site because as explained earlier, SALO is made up of links to other sites. The author also mentions what large companies have done to make sure that their sites load up quickly. He mentions the services of Exodus Communications, Freshwater Software, Keynote Systems and others that help in monitoring sites and taking out any redundancy that they might find.

For a site to be regarded as performing at its best, visitors to the site should not be delayed by the loading speed of that particular site. Zimmerman explains that monitoring will help companies to identify problems that are occurring outside of the boundaries of the company. For instance, you might not be able to detect problems especially load up time if you try to access your site within your institution. The best way to find out what your visitors go through when trying to access your site is to try to visit your site away from your institution. When this issue was tested with the SALO site, it was discovered that it was easier to access it from its parent institution, Durban Institute of Technology (DIT), than (it was when tried to access it) from another place, e.g. at home. Zimmerman believes that sometimes this particular problem occurs owing to faulty ISP connections Zimmerman (2001:1).

Slow or broken links	84%
Unable to find needed info	68%
Unable to find company info	31%
Poor search functionality	23 %
Poor labeled links	16%
Outdated FAQ's	6%
Site map too general	6%
Site uses pop-up ads	6%
Other	3%

Table 1: Percentage of visitors citing these reasons for leaving a site

The University of Texas website *Managing/Maintaining – learning to Publish* (2002), points out that designing a web site is only the first step in publishing a web site. Managing and maintaining the site and planning for growth are what keep your site fresh and useful. The web managers of the University of Texas go on to say that, the site should always be complete, current and cohesive. The article also discusses Internet tools that one can use to help with the management of sites. It discusses A UT Link Checker, which is a tool that can be used to check for broken links on the site by automatically checking all the links and sending you an email reporting those that are broken. This solution to link integrity is included in the manual, (See Chapter 5). The article goes on to discuss all the electronic tools available for the management of sites. For example, Link and File Management allows you to link related files together. It also discusses periodic Usability Testing that could be conducted every year to check with your users to see if you are still meeting their needs. This procedure has also been incorporated in the manual. This particularly valuable for the SALO site, since usability testing has never been done before in this systematic way. (<http://www.utexas.edu/learn/manage/maintain.html>)

Henricks (1997: 245-9) discusses a study that he conducted in which an electronic questionnaire was sent to the webmasters. He asked five open questions, but the one most relevant to the present study was “Is there a master plan for the business school Web page? If so, who is most responsible for developing this plan?” His findings were that there seemed to be no master plans in place on managing a site from all his respondents. This once again supports the view that there should be concrete policies and procedures relating to the SALO site.

Jascó (2000: 58-60) discusses concepts of different programs that librarians and webmasters could use to manage their web pages. He acknowledges that creating something always has an appealing aspect, and seeing your finished creation is satisfying. But a web site you created last month will certainly require some checking because links will have become outdated (See discussion above). Web pages need maintenance which is much less fun than creating something new. He discusses tools that can help web masters to develop and maintain their web pages. Many librarians first got their feet wet making HTML pages by creating documents on a word processor and saving them as HTML files. Undoubtedly this is convenient, but the result is certainly not the most efficient HTML code that can be produced. Neither can this method faithfully reproduce, for example, a nicely indented list in Word, or a sophisticated table created in Excel or Quattro Pro. Even when the output looks good, it may work in Internet Explorer but not in Netscape. If you use the free Netscape Composer software, the opposite may be true: the page looks fine in Netscape but not in Internet Explorer. Worse, correcting the code generated by these tools can be cumbersome because the code is bloated and not conducive to visual error detection and correction. You make a change in one line, and it may have cascading effects just because you forgot to insert the closing part of an HTML tag. Jascó’s warnings about word processor to HTML conversion proved true in the SALO project where the authors experienced similar difficulties (Stewart et al: 2001). A solution was found by transferring information to plain text files before posting it to the final HTML.

During the development of the SALO site, URLs were found by searching the Internet and were saved using Microsoft Word. Later, it was discovered that these links did not operate because unwanted MS Word codes had inadvertently been transferred when the URLs were saved. The developers then opted for FrontPage, which is a dedicated web page authoring program that uses HTML codes.

Jascó (2000:59) also mentions that a librarian could use an HTML Validator for instance to help guard against errors in the HTML code and save time. HTML validators come in different forms. There are some that check HTML pages one at a time and others that check an entire site. There are some that runs as Windows programs and other that ones runs as Perl scripts, which one has to upload to your site first. The “Dr. HTML” validator is particularly attractive for quick searches from any PC because there is no downloading or installation. All one has to do is specify a URL and choose some parameters at <http://www.2.imagiware.RXHTML>. Users are limited to one check per day. There are a number of freeware and shareware programs that check the linking saving one the arduous task of doing it manually. A few of the HTML validators, like Dr. HTML program, also include link checking. Some are limited to checking HTML pages on the hard disk in preparation for loading, such as the Lambda LinkCheck available at <http://www.stud.ifi.uio.no>

Any of the HTML validation and link-checking tools will save one much non-creative time-the bane of web site development and maintenance and encourage one to work on new pages more happily, knowing that the slaving part of the job is largely eliminated.

Guenther (2001: 81-4) argues that a web content management system becomes important when the site has grown beyond the ability to manage it as a collection of static HTML pages, and more people (non-technical) participate in publishing content to the web.

- The repurposing required to serve several audiences and having to program every new functionality requires more time than you or your staff have available.

- The demands of your constituency require you to make changes in order to better streamline the maintenance of the site to allow increased participation by content contributors. Meaning that, one needs to make it easy for non-technical participants to actively publish content to the web, providing friendly tools to do so and removing the bottlenecks that can occur between Webmaster and content contributor.

Guenther discusses planning for content management strategy reviewing the current content management strategy: identifying the strengths and weaknesses of your current process for developing and maintaining the site. These are the questions you can ask yourself: How many people do you currently support who contribute content to the site? What is your current process for allowing participation and how might that change with the implementation of a web content management (WCM) strategy? How do people want to contribute actively building their own departmental web sites or just providing content? (Go out and talk to people in your organization, since the strengths and weaknesses you identify in your current web development process will likely to be very different from those identified by many of your contributors). Understanding your current content management strategy may reveal weaknesses that will not be addressed by adopting a more sophisticated WCM.

Guenther (2003) mentions a number of issues that the author has come across from using different web pages/sites. Most of what is discussed by the author is what can be referred to as “bad web performance”. From the literature that was consulted during this study on the generally accepted criteria for the evaluation of web pages (See chapter 4), one of the criteria mentioned was currency. Guenther (2003) mentions as one of the draw backs of any web site, the date of the last update because it informs the user of when last the page updated. Another important factor mentioned by the author is that webmasters should provide users with cues, these can be done by indicating the file type- Pdf, Word, Excel or HTML as well as alerting the users if that particular site is too big in size, or whether the file might need support plug-ins for it to be viewed.

2.6 COMPUTERIZED MANAGEMENT AND MAINTENANCE SOFTWARE

2.6.1 HTML Toolbox

HTML Toolbox is a product made by Netmechanic available at <http://www.netmechanic.com/maintain.htm>. It comes with five major tools.

- **Link check:** this feature searches your site, testing each link it finds. A report is then submitted to the web master on the status of each link tested.
- **HTML check and repair:** bad tag usage, code syntax errors and spelling typos make it difficult for browsers to process your HTML and visitors to read your site. Therefore, this HTML validation robot finds bad HTML tags in your page and the repaired page is generated automatically to upload to your site.
- **Browser compatibility:** this feature allows your site to be scanned and will report on HTML tags that are not supported by different versions of the major browsers.
- **Load time check:** the robot checks the download time for your web pages.
- **Spell check:** this automated tool checks the text on your pages for spelling errors.

It is interesting to note that HTML Toolbox provides Webmaster tips and newsletters that keep the Webmaster up to date with maintenance issues. HTML Toolbox is one of the many management and maintenance software packages that are available to people who want to maintain their sites.

2.6.2 EXTERNAL SITE MONITORING SERVICES

External site monitoring services are offered by different software vendors to support the management and maintenance of web sites. A few of these services are listed below.

- **Vertain monitoring service:** a service from Vertain Software verifies that a web site is up and running and users can complete multi-paged

transactions. Vertain offers a free service for up to six tests per day. (<http://www.vertain.com>).

- **Silk Vision:** a service from Segue Software, Inc., actively monitors and evaluates the health of a site's live applications, providing clear visibility into their performance, availability and accuracy (<http://www.segue.com>).
- **AlertBot:** a monitoring service from InfoGenius, Inc. tests website availability and performance and alerts Webmaster of downtime. A free 15-day trial is also available (<http://www.alertbot.com>).
- **PingALink:** a web site monitoring service from PingALink LLC; remotely monitors websites and other Internet protocol servers for availability and performance issues. Sends detailed error codes via e-mail or pager. An extensive 30-day fully functional free period is provided (<http://www.pingalink.com>).

2.7 CONCLUSION

This chapter provided a detailed discussion on how web sites are managed and maintained. This chapter also gave examples of computerized software that is currently available on the market for the purposes of keeping one's site up to date and free of "HTTP404" or page unavailable. The procedures discussed in this chapter on how sites are managed and maintained, can be applied to subject directories. These procedures will be of benefit when a management and maintenance manual for the SALO subject directory is developed (See Chapter 6).

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 INTRODUCTION

This project uses a combination of expository and descriptive survey research methods in an evaluative framework to investigate the management and maintenance of an online subject directory. The main output of the research is a set of policies and procedures in the form of a manual for the continued maintenance and sustainability of the subject directory.

Expository methods involving the detailed discussion and analysis of existing subject directories and literature in the field have been used. This research is explained as “comparing, contrasting, analyzing and synthesizing all points of view on a particular subject ...” (Goddard, W and Melville, S. 2001:10). In this case the subject is the SALO directory, and the material consulted as well as new approaches and insights have been incorporated into an evaluation instrument, and then into the subject directory itself.

Central to the aims of the research was the development of a criteria matrix based on the review of literature that could then be used to design the evaluation instrument and to inform the structure and content of a subject directory user manual.

Descriptive survey methods were used to collect feedback from a group of evaluators to suggest improvements and changes to the SALO subject directory.

3.2 COLLECTION PROCESS

The data for each critical question was collected and analysed in the following way:

Critical question 1: What management and maintenance solutions have other subject directories implemented?

The primary data required was the explicit organization of subject directory websites, and the secondary data consisted of information about guidelines or procedures that other webmaster have used as solutions to maintaining and managing their own subject directories.

Primary data used was located on the Internet, and secondary data was located in books, online databases and journals.

Internet searches using search engines like Yahoo! and Google were used to locate the needed data and then this information was saved to a disk.

A literature search of print materials i.e. books and journal articles, was conducted to identify what had been published about management and maintenance of subject directories. A number of active sites were visited and analysed. Subscriber online databases such as Sabinet, Ebsco Host, HW Wilson, and Gale were also visited. E-mail communication between the researcher and the webmasters of selected sites was initiated.

Primary data derived from subject directory websites, secondary data from the literature, and responses from webmasters were collected, analysed and significant solutions to management and maintenance issues identified and summarized. The results of this investigation have been incorporated into Part 2 of the literature review (See chapter 2). Where relevant to the SALO subject directory site, certain management and maintenance procedures also identified here have been integrated into the manual (See chapter 5)

Critical question 2: What are the generally accepted criteria for a successful online subject directory?

Although many of the sites and sources analysed in the review of literature touched on the issue of evaluation criteria, the project required a more explicit focus on such criteria so that a definite set for our own evaluation purposes could be determined. Published and accepted criteria used to evaluate Internet resources in general, and online subject directories in particular were identified.

A number of relevant Internet sites concerned with website quality and design were accessed to determine what the accepted criteria for evaluating Internet resources were. Journal articles as well as books dealing with evaluation criteria were consulted.

Criteria derived from various authoritative sources were tabulated and commonalities identified. The criteria filtered through this process were combined by the researcher to produce a definitive set appropriate to the SALO subject directory. This set of criteria can be seen in Chapter 4 and in the manual (Chapter 5). The identical set was used as the basis for the survey of users (see sub-problem 3 and in chapter 2).

Critical question 3: To what extent does the SALO resource match up to these criteria?

Opinions and evaluations of expert users of the SALO subject directory were required for this part of the study. Their expert testimony was reflected in the survey responses.

A survey was conducted using a questionnaire that was distributed to the evaluation group in both paper and electronic form. The expert group consisted of subject librarians who had participated in a European Union workshop on subject skills during July-August 2002.

3.3 SELECTION OF THE EVALUATION GROUP

The library professionals who made up the evaluation group are subject librarians from historically disadvantaged tertiary institutions in South Africa. These professionals had participated in training interventions that were organized by the European Union in conjunction with the Department of Education. All the participants in the subject skills training intervention held in August 2001 were contacted to participate in the survey. These professionals were chosen because they were subject librarians at their respective tertiary institutions and they would be able to make valuable input towards the SALO subject directory.

3.4 QUESTIONNAIRE DESIGN

The evaluation questionnaire was used to collect primary data from the respondents for the study. According to Melville and Goddard (1996:47), a questionnaire is “a list of questions that respondents are asked to answer”. Before the final instrument was decided upon, a number of drafts were developed and refined until a suitable questionnaire was achieved. The careful examination and analysis of the literature (See Chapter 3 and 4) suggested generally accepted criteria for the evaluation of web-based subject directories, and these formed the basis of the evaluation questionnaire.

The questionnaire was developed using a five point Likert scale to assess the extent to which the respondents felt the SALO subject directory matched to the evaluation criteria. The five-point scale was selected to elicit a clear-cut response from the evaluations. This decision was also supported by Melville and Goddard (1996:48) when they state that “a four-point scale forces a decision, while a five-point scale provides a possibility of a neutral answer.”

Other criteria used to design the evaluation questionnaire are suggested by Leing (2001:2).

- Use short and simple sentences.
- Ask for one piece of information at a time.
- Avoid negatives if possible.
- Ask precise questions.
- Minimise bias.

Melville and Goddard (1996:48) state that a good questionnaire:

- Is complete, it gives you all the data you need,
- It asks only relevant questions,
- It gives clear instructions,
- It starts with general questions,
- It has objective questions with sensitive questions spread at the end,
- It has unambiguous and understandable questions.

These principles were applied to the design of the SALO evaluation questionnaire, which was administered both online and in printed format (See Appendices 1 and 2).

3.5 DESCRIPTION OF THE QUESTIONNAIRE

The instrument used for the survey consisted of a precoded questionnaire, which allowed respondents to give their own evaluation scale with reference to the SALO subject directory.

- Section A : General impression of the website.
- Section B : Layout and design.
- Section C : Content
- Section D : User friendliness.

- Section E : Accessibility.
- Section F : Currency
- Section G : General comments and suggestions.

The questionnaire was structured to obtain the following information for each section.

▪ **Section A**

Data in connection with the general impression of the site indicating the ease of access and how quickly the site loaded.

▪ **Section B**

Data in connection with layout and design, indicating the colour coordination, attractiveness, font of the text, navigation icons, and the arrangement of information on the site.

▪ **Section C**

Data in connection with content, indicating if the purpose of the site was clearly stated, content, relevance of links to the topic, title of the site if it was relevant to the information given.

▪ **Section D**

Data in connection with user friendliness, indicating the ease of use, availability of help menus, search facilities provided, and if the respondent would recommend the site to other people.

- **Section E**

Data in connection with accessibility, indicating the activeness of the links, easy access to other sites/links and the quality and relevance of the information on the other links.

- **Section F**

Data in connection with currency, indicating the date of the last update made on the site.

- **Section G**

Data in connection with the respondents' comments on the site as well as their suggestions.

3.6 QUESTIONNAIRE CONSTRUCTION

The evaluation criteria discussed in Chapter 2 were consulted and used as the basis for the construction of the evaluation questionnaire that was administered to the respondents. Management and maintenance procedures and guidelines discussed in Chapter 2 were used as the basis for the formulation of a manual for the SALO subject directory.

The questionnaire consisted of 22 Likert scale questions and three general questions. A covering letter addressed to the respondents outlined the importance of the study, the aim of the survey and the value of participation. The return rate was reinforced by assuring confidentiality, but respondents were free to identify their names and occupations if they wished. The covering letter was prepared and typed by the researcher and reflected the designation of the researcher.

The covering letter was to be kept by the respondent whilst the questionnaire was to be returned to the researcher using the self-addressed envelopes that were posted together with the questionnaire. The respondents were also notified that the

questionnaire was available online and they were free to answer the online questionnaire and disregard the posted one. A number of respondents did use the online facility for this survey.

The responses from the people who participated in the study were tabulated and analysed. A detailed analysis and discussion of the findings appears in Chapter 5. The findings were used to formulate the criteria included in the manual, and to form the basis of future evaluations of the SALO subject directory, an integral part of the recommended maintenance and management procedure (see chapter 6).

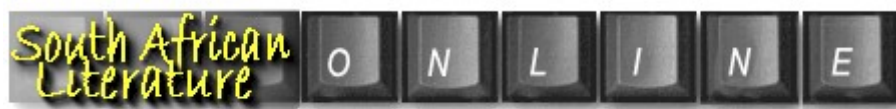
3.7 AN ACCOUNT OF THE DEVELOPMENT OF THE ONLINE VERSION OF THE EVALUATION QUESTIONNAIRE

The respondents of the survey had a choice of completing either the printed evaluation questionnaire that was posted to them, or the online questionnaire. On the printed evaluation questionnaire, respondents were given the address (URL) of the SALO subject directory. When they accessed the site, respondents had to click on “Survey” in order to participate (See Figure 1).

On the online survey, respondents had to answer a question that requested them to indicate if they had filled in the printed evaluation questionnaire. This they had to indicate with a “yes” or “no”. The researcher wanted to be able to see if there were people who had answered to the survey twice. None of the respondents that filled in the online questionnaire had completed both questionnaires.

When the returned questionnaires were coded, to check for completeness, accuracy etc. the printed returned questionnaires were given numbers from 1 to 10 and the online responses were given numbers 100-107. This was done in order to differentiate between the two types of questionnaire. The same covering letter as the one that accompanied the posted evaluation questionnaire was posted on the SALO site. After clicking on the “Survey” button, there was a hyperlink created that linked the respondent to the covering letter (See Appendix B: online evaluation questionnaire).

After having completed the survey, respondents were then asked to click on the “Submit” button and the responses were then accessed from the SALO database. Respondents were also provided with the researcher’s e-mail address for contact if they needed any further information or clarity on how to fill the questionnaire.



South African Literature Online Subject Directory (SALO)



Search the database  [Click here](#)

Literature by language Resources by category

[Authors, Biography and Autobiography, Children’s Literature, Drama, Fiction, Orality, Mythology and Storytelling, Poetry, Short Stories, in the languages of South Africa](#)

Afrikaans - English - isiNdebele - Sesotho sa Leboa -
Sesotho - siSwati - Xitsonga - Setswana - Tshivenda -
isiXhosa - isiZulu - Khoe - San - Sign Language

Bestseller Lists - Bibliographies - Book Collecting - Book
Conservation - Book Reviews - Book Shops - Chats and
Forums - Creative Writing - Criticism and Theory - Electronic
Books - Film and Video - Journals - Language Organisations
- Libraries - Literacy - Literary Histories - Literary Libraries -
Literary Webs - Newspapers and Magazines - Online
Databases - Prizes - Publishers and Publishing - Radio -
Study Guides - Subject Directories (Web Indexes) - Travel

Figure 4: SALO Home Page

Critical question 4: How can a sustainable management and maintenance programme be established for SALO?

The results of earlier steps in the research project including established criteria and evaluative feedback were required to design a manual. In addition, management and maintenance guidelines of other sites were utilized in the design of the manual.

For the most part, criteria already established earlier in the research were used. The Internet was searched to find any related guidelines pertaining to management and maintenance procedures.

Using the criteria discussed in Chapter 2 and having examined guidelines for other sites, a manual (See chapter 6) for the SALO subject directory was developed. The manual also includes the evaluation criteria to be used in future to evaluate the site on an ongoing basis.

3.8 CONCLUSION

This chapter discussed the research methodology applied for this study. It also gave an account of how the participants were selected. A detailed discussion on each critical question underpinning the study was provided.

CHAPTER 4: THE EVALUATION MATRIX

4.1 INTRODUCTION

This chapter discusses published criteria that could be used to evaluate Internet resources and if these criteria could be applied to subject directories. Academic institutions have realised the importance of information literacy. In some instances information literacy is incorporated into the curriculum and sometimes librarians in these academic institutions offer information literacy. Information literacy is defined as “the ability to identify, retrieve, evaluate and use information that is appropriate to a need.” A student who develops information literacy skills will be more successful in his/her studies and daily life. These skills enable students to become lifelong learners.

Jayne (2003) explains the concept of information literacy saying that the research process has become increasingly challenging, with technology contributing to information overload. Print, electronic resources, including networked databases, the World Wide Web, and traditional print resources, available makes students to be prepared to evaluate and make informed choices about the best sources for their needs. The statement made by Jayne makes this research valuable. This chapter will address evaluation criteria to be used to evaluate subject directories, or any other Internet resource.

Casey (1998: 20) argues that the well researched, neatly presented web site that perfectly pulls together information in a manner not found on any other web site or in a print source is a gem that librarians pounce on and bookmark. They then guard it with their lives. It is a collection of sites like this that the SALO directory set out to develop. But suddenly the web site may be gone, with no forwarding address. Unable to comprehend how such a treasure of information could be removed without even a warning, frantic checks are made to see if it still exists, perhaps disguised with a new title. Given the number of broken links and search engine entries that lead to vacant

sites, one then gets the feeling that a significant percentage of web sites have a very short life span. There is no guarantee that a site will still be at the same URL address later. From a librarian's point of view, this means, "in addition to evaluating the quality and utility of the information itself, methods must be developed for determining, for each resource, the optimal storage, delivery, and preservation mechanisms" Tenant (1996:3). As far as the Internet goes, librarians are tackling the evaluation and delivery part of this declaration, and need to develop storage and preservation measures for the Internet resources.

The fact that web sites often quickly go out of existence is the equivalent of allowing the same type of material that is painstakingly preserved in physical media to be lost forever. Although there are many web sites that one wishes would disappear, there are a few that form a strong core of knowledge on the Internet. Unfortunately, content does not dictate levels of stability.

The issues highlighted by Casey are really important for the SALO site because the site needs to be available at all times, and no visitor should find that the links are no longer active. Although Casey discusses issues around maintenance of sites in a fairly indirect way, there are several implied criteria for the management and maintenance of such a site. Several of these may provide a basis for formulating guidelines and procedures for SALO.

Amongst these criteria, Casey suggests:

- (a) Local storage of valuable sites on disk even though "the lifespan of a computer disk is relatively short."
- (b) Securing funding to pay for secure server space – "Most folks in the academic world use the space allowed to them on their university accounts to post web pages." Without sustainable funding, these resources may be lost, even though they are often of the nature and quality that librarians recognize as valuable.
- (c) Inclusion of hit counters so that the web master may have an indication of the popularity of his/her site. Without this form of feedback, webmasters

may withdraw the site “usually without the knowledge that half the reference departments in the country may have a bookmark to it.”

Feather (2000: 41-46) explains the usefulness of networks in the mass communication technologies. He points out that a network allows digitized signals to be sent from one computer, by cables or microwaves similar to those used by telephones in a format that is understood by the other computer. He states that networks allow for the provision of information in ‘real time’ meaning, the request for and the access to information, are immediately answered to.

Initially, searching for information using a computer was the same as using a book index, reading through a list to find a reference, and then “paging through the computer to find the item. The mid 1970s saw the establishment of Boolean searching which allows the user to combine terms but also to exclude other terms from the words used for the search. The Web browser extended searches to the World Wide Web, allowing you to find information on almost any topic with a few clicks of your mouse button. Hypertext links on a web page opened up the possibilities of the index entry or reference text to take the user directly to the reference source, and hence gave birth to subject directories. Chowdhury, G. (1999: 399) discusses different significant ways in which the Internet has had an impact on information retrieval. Most interesting is his discussion of the impact of the Internet on education. He mentions that significant changes are now clearly observable as far as education and research are concerned. A student or a researcher is now able to access catalogues of almost all the major libraries globally. They do not need to be physically based in the library, but by using a computer the information needed will be a click away. Some academic institutions have introduced online distance learning whereby learners can attend lectures without actually being in the particular institution. Clearly a facility like a subject directory in which some of the resources on the Web have been classified into directories that you can easily browse by going from one category to another adds value to such Internet usage. By investigating procedures pertaining to management and maintenance of online subject directories

such as those described by Chawdhury, this study aims to demonstrate how the findings could benefit the users of the SALO subject directory in a similar fashion.

4.2 EVALUATION CRITERIA

The World Wide Web has grown enormously since its establishment in the early 1990s and there is now a great deal of literature available that recommends criteria for evaluating Web based resources. Apart from developing management and maintenance guidelines for the SALO site, this study will also develop evaluation criteria for the site. A number of authors (Tong, J.; Richmond, D.; Harris, P.; Kapoun, J.; Beck, S. and Smith, A.) propose broadly similar criteria for evaluating Internet resources.

The following table combines and summarizes these criteria:

<p><i>Authority:</i> checking the domain of a URL because cant give an identification of an author’s credentials, for instance .ac for a South African academic institution or ‘edu.’ for international academic institutions.</p>
<p><i>Currency:</i> as with the case for print materials this is an important factor in evaluating Internet resources. Currency is about the frequency of updates made to the site as well as for checking dead links. Content or scope of a site refers to the relevancy of the content information to the site as well as the relevancy of the information to the title of that particular site.</p>
<p><i>Date:</i> refers to the date the page was created or last updated. This will give the user an idea of how frequently the information is updated.</p>
<p><i>Objectivity:</i> The user of Internet based resources needs to check what the goals of the site are. For instance, is it a commercial site i.e. “.dot com” or is it an educational site (see above).</p>
<p><i>Citation:</i> if one uses Internet resources whether it be for research, assignments etc. these resources need to be cited as well because it is important to acknowledge the source of the information that one used.</p>
<p><i>Design:</i> the presentation of a site is one of the most important criteria that will make people revisit the site as Kim, et al. (1999:647) discovered in their study. The use of background colours, graphics should not make the site to load slowly as this irritates users who access sites. Since the SALO subject directory has a built-in database where users submit suggestions or comments, one of the comments that was received in 2001 was to remove the pictures of the students who created the site since it made the site load more slowly. When the photos were moved to a subsidiary page it was discovered that the loading speed was increased (See a table of selected comments/feedback).</p>
<p><i>Ease of use or workability:</i> how user friendly is the site. The site should be simple and users must be able to use the navigation tools with ease.</p>
<p><i>Content:</i> a user needs to check if the information given on a particular site is factual or just a person’s opinions. Content should be reflective of the title of that particular site. For example, SALO is a South African Literature Online subject directory. Anyone who accesses it will definitely need to see the content reflecting what the title says.</p>
<p><i>Comparability:</i> this refers to the other features that are in-built into the site to make it more accessible, for example, print/CD ROM and save features, because more likely than not, if a user feels that the information before him is relevant, he would want either to save or print it.</p>

Continuity: Are you able to rely on that site for future reference? More likely than not, a site that was available three days ago might not be available next week or month. Some of the sites that the researcher accessed with recommendations from other authors as having good evaluation criteria were no longer available “file 404”, or “cannot find server” messages were found instead.

Table 2: Summary of evaluation criteria

Kim, et al. (1999:647) discuss a study that they conducted in order to review published criteria specifically for evaluating health related information on the world wide web. The study was made possible by searching the World Wide Web using search engines like Yahoo! HotBot, Lycos, Internet Guide and Inforseek, as well as databases, Medline and Lexis-Nexis. A total of twenty-nine published rating tools and journal articles were identified to determine the explicit evaluation criteria for health related web sites. In their findings, the authors noted that the highly regarded evaluation criteria were: content, design and aesthetics of the site, ease of use, availability and accessibility and how frequently the site was updated. This study was of considerable assistance in laying the foundation for the SALO study, because the SALO site is also a subject directory, although the focus is South African Literature rather than medical information. A major aim of this project was the accumulation of information on the accepted criteria for evaluating web sites and to develop specific criteria to evaluate the SALO subject directory itself. These criteria were, in turn used to develop an evaluation instrument to seek feedback on the existing prototype SALO site.

Nguyen (2000) developed a project that contained a useful evaluation instrument for high school students in order to help them select appropriate information resources and especially Internet resources.. The instrument that was designed for this particular study was “OASIS” and it is an acronym for objectivity, accuracy, source, information and span. OASIS was tested at the Roosevelt High School and it was adapted to be used in future by the State of Hawaii Department of Education. This tool was designed from existing guidelines that were initially created by teachers and librarians. Nguyen consulted a total of sixty-six guidelines, and from these, six factors emerged as being the most important evaluation criteria for Internet resources

as sources of information. The following table is taken directly from the author's study:

Factor	%
Authority	97
Accuracy	94
Content	93
Relevance	85
Coverage	84
Scope	83

(N=66)

Table 3: Nguyen's six evaluation criteria

The table above shows the six factors identified by Nguyen's study as well as their ranking in terms of importance. Nguyen's findings were particularly significant in the design of the evaluation instrument used in this present study. Evaluation feedback on the SALO site is on page 31 (Chapter Three).

There have been a number of studies to identify evaluation criteria for Internet resources. These range from studies conducted at high schools, (see Nguyen above,) as well as a study done by Mechitov, et al. that applied to university students. The aim of the study was to analyze what students perceived as good academic sites and why they thought so. Various sites have different purposes, e.g. academic sites concentrate on attracting new students to their academic institutions and provide information; the type of courses offered, registration times as well as offering student's results online etc. Commercial sites on the other hand, are concerned with selling their products to the consumer. Subject directories like the SALO site are more concerned with providing information or access to information on a given subject, in this case South African literature. The evaluation criteria for these sites might be different because, Mechitov's findings show students perceive good academic sites to be ones that are entertaining, and similar to the findings of Kim, they rate highly ease of access as well as stylish design. Though this study concentrates on subject directories, there is not

much information available on how to evaluate subject directories rather, there is information on how to evaluate Internet resources in general. Therefore, the researcher has used different kinds of information and sources to identify similarities as well as differences with regard to the generally accepted criteria for Internet resources. One of the points noted by Mechitov is that students preferred sites that provided them with links to other sites for example, tourist information, and other features on the site for example, audio or video effects which in turn make the site to be attractive Mechitov et al. (2001: 659).

The findings of Mechitov et al. will be of assistance when a new look for the SALO subject directory is decided upon because at the moment the subject directory does not have any features to make it attractive i.e. SALO does not provide audio or visual effects. This will need to be investigated to establish if it is indeed needed and is compatible to the overall design of the site.

It is a fact that there is a lot of information available on the Internet, and as librarians used to evaluate print sources, Internet resources need to be evaluated as well. There is no control of who can publish on the Internet and anyone who has a computer and a network connection can publish. This then backs the question of how reliable and authoritative the information is that we access from the Internet. Many evaluation criteria for Internet resources have been considered in the literature here. A survey conducted by Bantjes and Cronje (2000:121) investigated published criteria for evaluating Internet resources, from the Internet as well as journal articles. The survey then enabled the authors to develop a “toolbox” that could be used as criteria for evaluation. Though there are numerous published criteria for evaluating Internet resources, a person then needs to select those which seem appropriate for one’s particular evaluation project (Bantjes and Cronje 2000:123). The authors reviewed five Internet rating systems to check which factors would be the key evaluation criteria. From their findings, the authors noted that: “aesthetic qualities of the design and presentation were emphasized by all five Internet ranking systems” (Bantjes and Cronje, 2000:123). The authors also noted that content was only mentioned by three

of the five rating systems. Another factor listed also by Mechitov above was that preference was given to sites that were “fun”.

Bantjes and Cronje’s survey, like that of Nguyen (See Page 25) made a valuable contribution to the final set of evaluation criteria used for the SALO project evaluation instrument. Bantjes and Cronje noted that the five Internet rating systems gave the following as the key criteria for the evaluation of Internet sites.

	Number of sites
Graphic and multimedia design	5
Browsability and organisation	5
Currency	5
Content (in general)	4
Authority	4
Uniqueness	3
Audience	3
Workability	3
Connectivity	3

Table 4: Findings of Mechitov 's study

Bantjes and Cronje’s final toolbox on the evaluation criteria for Internet resources is as follows:

A. Scope
B. Content <ul style="list-style-type: none"> ▪ Accuracy ▪ Authority ▪ Currency ▪ Uniqueness ▪ Links made to other resources
C. Graphic and multimedia design
D. Purpose and audience
E. Reviews
F. Workability <ul style="list-style-type: none"> ▪ User friendliness ▪ Required computerized environment ▪ Searching ▪ Browsability and organization ▪ Interactivity ▪ Connectivity
G. Cost

Table 5: Banjes and Cronje's final toolbox on evaluation criteria

Turner (2002:37) discusses how he ended up creating his own Web site usability methodology because he realized there were no criteria to measure usability. His own methodology on usability is called “heuristic evaluation by proxy” or HEP. He defines it as “an expert evaluation, or evaluation by a team of experts”. Turner also adds that “HEP allows the tester to use a set of heuristics (pre-defined expert criteria to evaluate a given Web site” (Turner, 2002:37). The HEP test is divided into seven sections. Outlined below are some of the questions under each HEP category.

<p>Category A: Navigation</p> <ul style="list-style-type: none"> ▪ Is there a menu or list of contents in the main page? ▪ Is there a minimal number of links used to arrive at a particular bit of information or a page? ▪ Are links accurate and up to date?

<ul style="list-style-type: none"> ▪ Is there a flat navigation structure (i.e., links to anywhere from anywhere within the site?) ▪ Does the site use a site map?
<p>Category B: Page Design</p> <ul style="list-style-type: none"> ▪ What is the position of the menu or list of contents on the screen? (Position these on the left side or top of the screen.) ▪ Location menu bar/tools bar/navigation bar should be at the top and bottom of the screen. ▪ Use clear and distinctive headings and subheadings. ▪ Use short paragraphs (not more than six sentences). ▪ Does the site use a conservative colour scheme that is easy on the eyes?
<p>Category C: Content</p> <ul style="list-style-type: none"> ▪ Is the language suitable for the audience? ▪ There should be high-quality writing, good grammar, and no spelling errors. ▪ What is the depth of subject coverage? ▪ What is the breadth of subject coverage?
<p>Category D: Accessibility</p> <ul style="list-style-type: none"> ▪ Load speed is within 3 to 10 seconds. ▪ The site is compatible with all main browsers. ▪ Contents are compatible among different versions of same browser (to a certain extent). ▪ Did you provide downloadable versions of forms, or phone numbers where users can call to request more information?
<p>Category E: Media Use</p> <ul style="list-style-type: none"> ▪ Are there control features for audio where appropriate? ▪ Are graphics and/or images used appropriately for emphasis? ▪ Is there minimal use of cosmetic or unnecessary graphics and images?
<p>Category F: Interactivity</p> <ul style="list-style-type: none"> ▪ Provide features to gain the users' feedback about a site-e-mail address, forms etc. ▪ Other features for sharing views and discussions.
<p>Category G: Consistency</p> <ul style="list-style-type: none"> ▪ Is there a consistent page layout from section to section? ▪ Is there a consistent and logical use of text from page to page and section to section in terms of type, font size, and colour? ▪ Is there consistent use of the same navigational aids across sections?

Table 6: The HEP checklist

After this checklist has been applied to that particular site, the tester is then able to see how well that site matches up to these criteria. This could be a useful tool to use when one is still on the designing stage because you will be familiar with what to include and what to exclude. In a way, the checklist designed by Turner is similar to the

evaluation questionnaire that was designed for the SALO subject directory (See Appendix A).

4.3 CONCLUSION

This chapter highlighted published criteria that could be used to evaluate online information. With the amount of research that has been done, it is then important for anyone (not only, students but researchers, academics and anyone) using Internet based information to be able to use criteria to evaluate that particular information resource.

CHAPTER FIVE: RESULTS OF THE EVALUATION SURVEY

5.1 INTRODUCTION

This chapter deals with the presentation and discussion of results. The data is presented in tables and graphic form. Presentation is done on a question-by-question basis. See Appendix B for the copy of the questionnaire that was used as a data gathering instrument. See Appendix A for a copy of a filled out questionnaire.

Details of the number of questionnaires distributed and the responses returned are indicated in Table 4.1. In all fifteen were received and included in this number are the ones that were accessed online from the SALO subject directory, “Survey” menu option.

No. Distributed	Printed responses	Filled Online
35	6	9

Table 7: Breakdown of administered questionnaires

5.2 PRESENTATION AND DISCUSSION OF RESULTS

Question 1: Have you ever accessed the SALO site?

This was an introductory question since the researcher needed to know if the respondent had ever accessed the SALO subject directory before.

Yes	No
11	4

From this table it is clear that some of the respondents that participated in the study had previously used the SALO subject directory.

SECTION A: GENERAL IMPRESSIONS OF THE SITE

The scores in the Likert scales were calculated as follows: strongly disagree, disagree, neutral, agree, and strongly agree. A high total therefore reflects a more “positive” attitude towards the item.

The evaluation criteria in this Section dealt with the general impression of the site. For example, respondents were requested to evaluate the site in terms of access and the quickness of the pages loading up. The results are presented in Table 8.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
It was easy to access the SALO website	0	0	0	6	9
The pages load quickly	0	0	2	5	8

Table 8: Cross-Tabulation: Respondents' position on general impression

90% of respondents found it easy to access the site. 86% of the respondents agreed that the pages loaded quickly. In 2001 when the pilot SALO subject directory was launched, it had pictures of all the students that had contributed to the development of the subject directory. After the subject directory had been published on the Internet, one of the users sent a suggestion that the pictures of the students should be removed because it made pages to load very slowly. This was done and from the respondents' ratings it is clear that the action was effective.

The features examined in this section received the highest scores compared to those of the other sections.

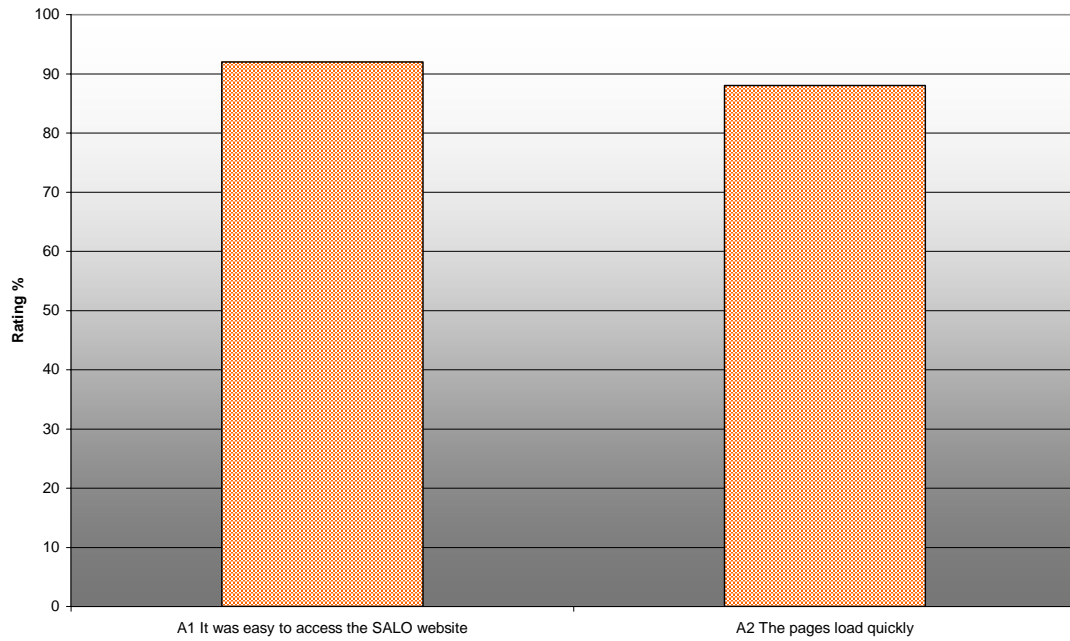


Figure 5: Feedback (A) General Impression

SECTION B: LAYOUT AND DESIGN

This section required a number of evaluations with regard to the colours used, attractiveness of the site, kind of topics provided, fonts used, icons used for navigation controls, how easy it was to move around the site as well as the arrangement of information on the site.

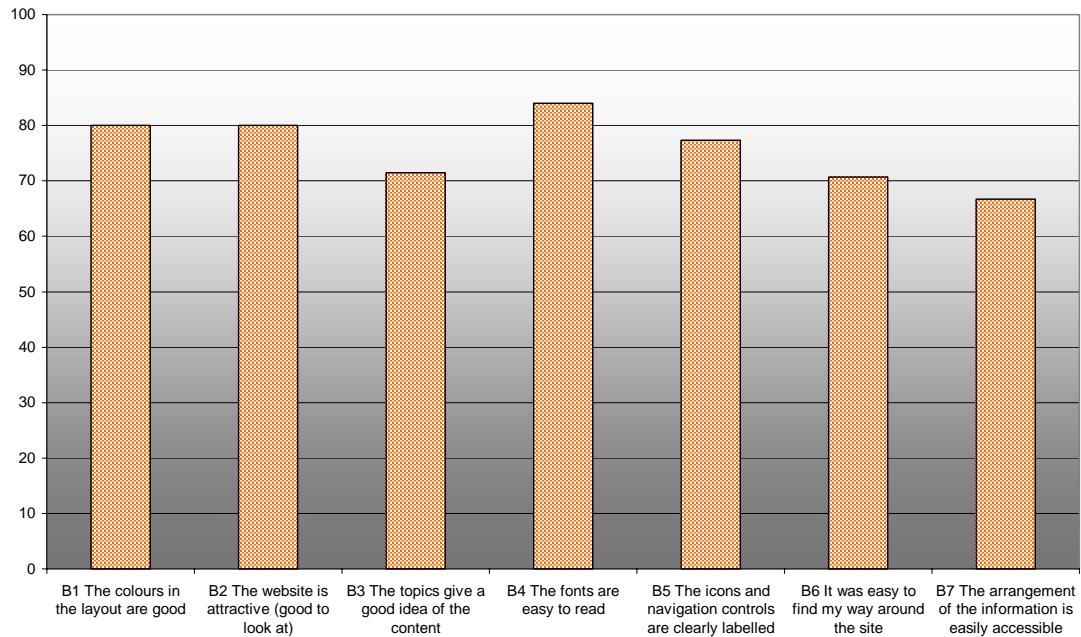


Figure 6: Respondents' positions on layout and design

The highest rate of agreement in this section was: “the fonts are easy to read” with a score of 83% and the lowest in this category was: “the arrangement of the information is easily accessible” with a score of 65%. Both B1: “the colours in the layout are good, and B2: the website is attractive (good to look at scored)” 80%. B3: the topics give a good idea of the content “scored 72%. The icons and navigation controls are clearly labelled” (B5) received a rating of 75%. B6: “it was easy to find my way around the site” was rated 60% and B7: “the arrangement of the information is easily accessible” received 65%.

From the respondents’ ratings it is clear that there is still a lot that can be done, (especially with regard to the content) because the reason that people would return to a particular site is because of the content that is provided in that particular site. A detailed plan for the future developments to this site will be outlined in Chapter 5 when the researcher comments on recommendations for the SALO subject directory.

SECTION C: CONTENT

The purpose of this section was for the respondents to evaluate the content of the site, in terms of its purpose, whether the content was informative or not, whether links to other sites were relevant to the topic, whether the information on the topics is relevant and if the title was indicative of its content.

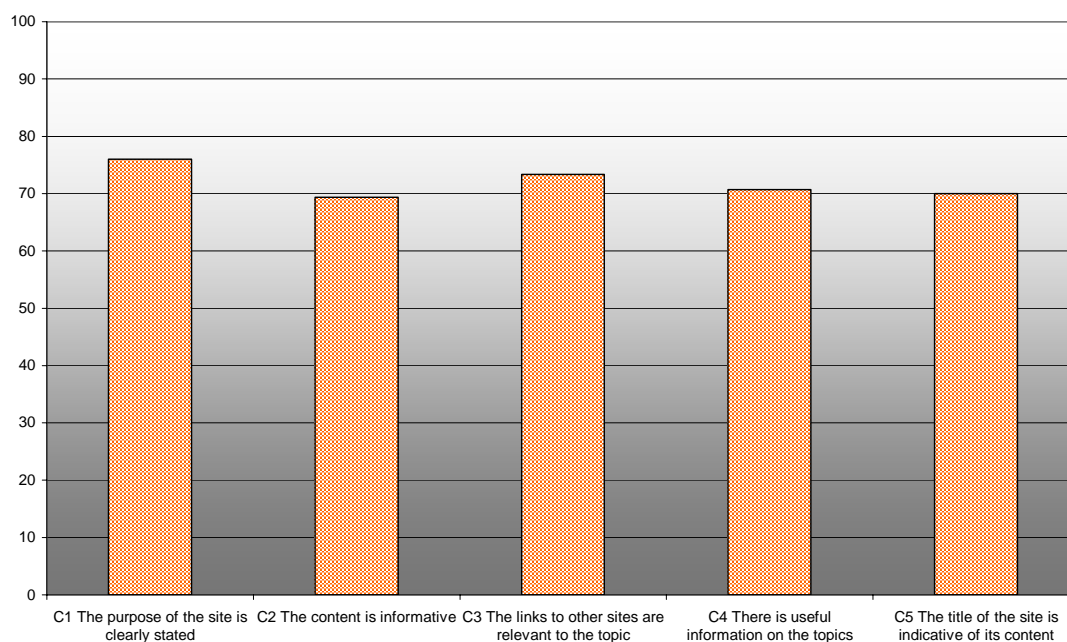


Figure 7: Respondents' position on content

It was clear from the literature that one of the generally accepted criteria for evaluating online subject directories is that the purpose (being one of the stated criteria) of each and every site should be clearly stated. C1: the purpose of the site is clearly stated scored 75%. C2: “the content is informative” scored 69%. C3: “the links to other sites are relevant to the topic” was rated 75%. C4: “there is useful information on the topics” received 72% and C5: “the title of the site is indicative of its content” attained 70%.

There is coloration between C2 and B2 in the sense that both the evaluation criteria deal with content. Having consulted the literature for this study, the researcher strongly believes the scores on these should have been higher than what they are now.

It is then a challenging task for the developers of the site to increase and give valuable content pertaining to South African literature.

There are a number of suggestions that had been forwarded by users who had visited the site. Some date back to 2001, but since there has been no one who was appointed as the webmaster (see Chapter 2), some of those forwarded suggestions have not been implemented.

Figure 7 present the scores on a graph.

SECTION D: USER FRIENDLINESS

This Section required respondents to evaluate the site in terms of: ease of use, if the site has help menus and aid tools, if the search facility is active and if whether they would recommend the site to other people.

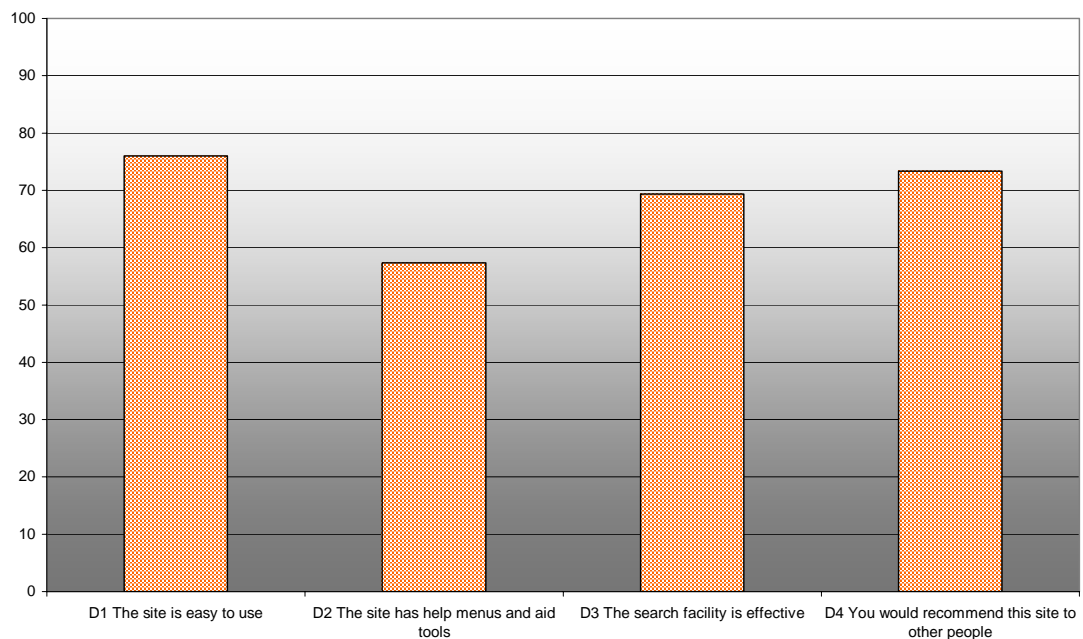


Figure 8: Respondents' position on user friendliness

75% respondents agreed that it was easy to use the site. D2: “the site has help menus and aid tools” received the lowest score of 55%. D3: “the search facility is effective” scored 79%. D4: “you would recommend this site to other people” scored 72%.

The low score of the search facility was noted as an urgent area for improvement in the SALO subject directory.

SECTION E: ACCESSIBILITY

Section E requested respondents to evaluate the site in terms of its accessibility.

Rating was to be given for: links always active, easy access of other sites and if the quality of the information on the other sites was relevant.

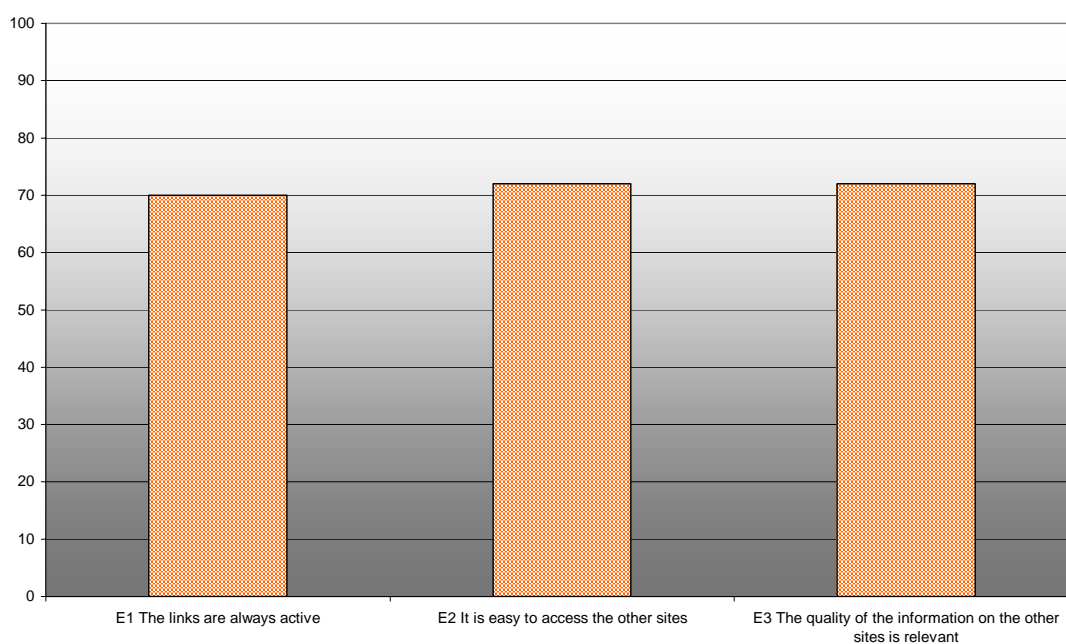


Figure 9: Respondents' position on accessibility

70% of respondents agreed that the links are always active. E2: “it is easy to access the other sites” and; E3: “the quality of the information on the other sites is relevant” each received 72%.

SECTION F: CURRENCY

This Section requested respondents to evaluate if there have been recent updates to the site.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
F1 The site has been updated recently	-	3	-	6	4

Table 9: Cross-Tabulation: Respondents' position on currency

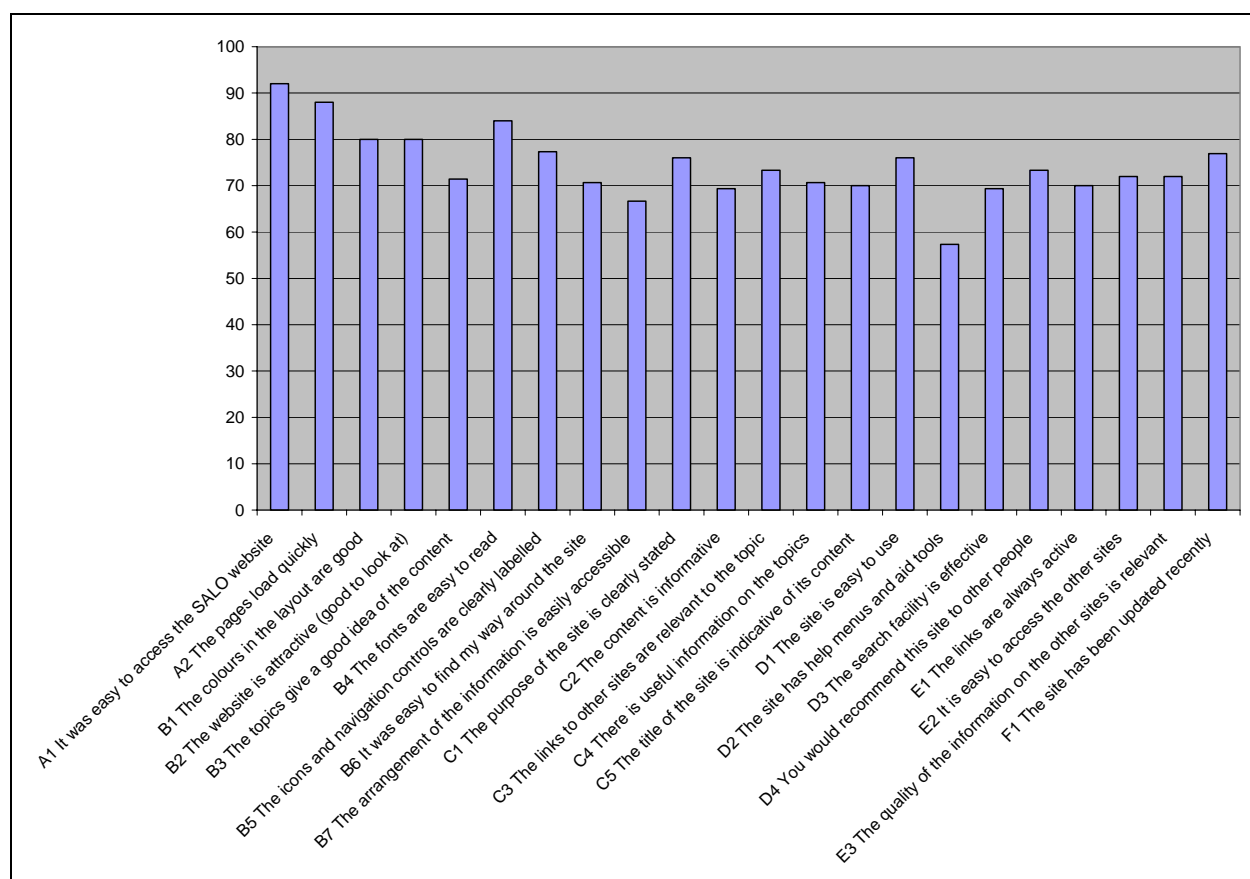


Figure 10: Feedback All Categories

CHAPTER 6: THE SALO MANAGEMENT AND MAINTENANCE MANUAL

6.1 INTRODUCTION

The manual will serve as a guide to future management and maintenance procedures for the SALO subject directory. From the literature that the researcher consulted during the course of this study, it became clear that it is important for a site to have management and maintenance guidelines.

Executive Summary

❖ Technical decisions

Initially, when the first pilot SALO home page was designed, the home page had pictures of all the students that had participated in the project. When the pilot subject directory was made available online, one of the users contacted the researcher by using the online submission form to inform us that the pictures made the page load slowly and advised that the pictures be removed. This was done and it proved to have been a wise decision. It is important then never to have pictures on the first page of the SALO subject directory.

❖ Access and browser

The site is accessible with any Internet browser. For disaster management, a disk of the SALO subject directory should be kept at the Project Supervisor's office and as changes are made to the site, these should also be saved on the disk so as to keep it up to date.

❖ Page layout design issues

The first page of the subject directory outlines the different categories that a user can use to search the subject directory, namely, resource category as well as category by subject. See the figure below. The preferred font size is 12 for the text and 14 for all headings.

❖ Navigational issues

Depending on the category chosen from the first page, the user will be able to search the SALO database. Figure 11 shows the two categories that the user can use to search the SALO subject directory, literature by language and resources by category.



Figure 11: SALO home page showing first-level categories

6.2 NEEDS ANALYSIS

The needs analysis will establish the users of the sites as well as the services that can be offered.

6.2.1 Background

The SALO subject directory came into being through a collaborative initiative between the University of Durban-Westville and the Department of Library and Information Studies, Ml Sultan Technikon (now known as ML Sultan Campus of the Durban Institute of Technology). B.Tech students in the department were involved in finding suitable links to be included into the subject directory under the supervision of Professor Stewart. A number of engines, for example, Google were used to access any URLs that dealt with South African Literature. The pilot subject directory is now available and the importance of the study was to come up with procedures on management and maintenance as well as a manual for future activities on the site.

6.2.2 Clients

The users of this subject directory are people who are interested or involved in South African literature. The users may be scholars in South African literature and may be anywhere in the country.

6.3 TECHNICAL ASPECTS

When the SALO subject directory was developed, different types of files were used. Text files (for text), HTML and GIF files (for pictures). Text files were then converted to HTML using Microsoft FrontPage.

The SALO subject directory is made up of three components that work together: the server, SALO database and the SALO home page.

The server connects the SALO home page with other Internet sources, that is, for the SALO subject directory to be able to be available online there has to be a server connection. This is illustrated in Figure 12 below.

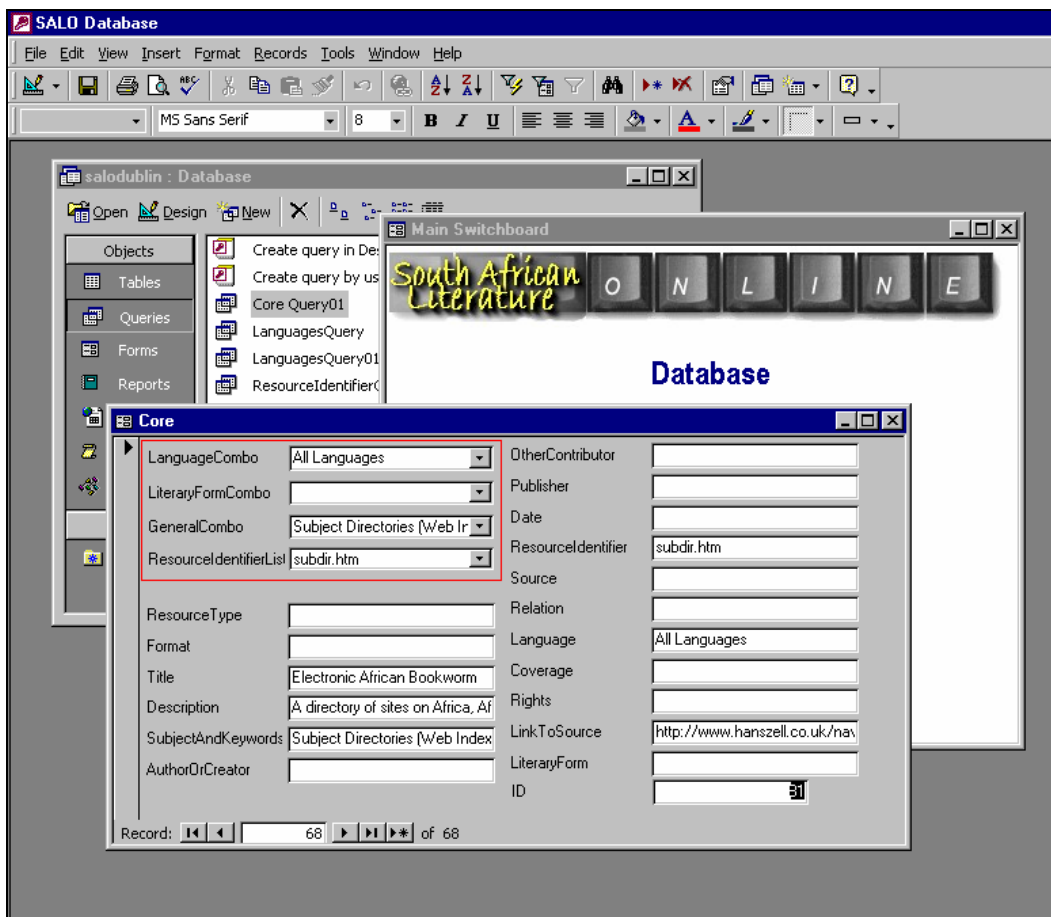


Figure 12: Database field structure illustrating the three components that make the SALO subject directory

6.4 THE DATABASE: DESCRIPTION OF THE PILOT SUBJECT DIRECTORY

6.4.1 THE USER INTERFACE

Both the review of the literature and the analysis of Internet sites confirmed that the two key criteria for a good online subject directory are: many useful links, and a user-friendly interface. The SALO user interface aims to meet both criteria. Three search possibilities are presented to the user on the home page: search by language, search by category and keyword search (see Figure 11). At the present stage of development, the first two options retrieve all the entries, arranged alphabetically according to the category chosen. The keyword search option allows the entry of a single key word that retrieves entries that include the key word in their metadata field (“Description” in the SALO database).

Three “semi-official” languages, Khoi, San and Sign languages have, however, been retained in Level One.

Further work on the subject directory will test the feasibility of including cascading menus under each of the language categories, and a wider range of search options in the keyword search feature.

Although the database contains 18 fields, only three of these are displayed to the user: Title, Description and URL (which provides a direct link to the referenced online resource). The other fields (primarily based on the Dublin Core, see below) are hidden from the user and allow for sorting, and for the inclusion of further details regarding the site, e.g. copyright and date of publication.

6.4.2 UNDERLYING DATABASE STRUCTURE

Although largely invisible to users of the site, the systematic description of each resource is a key factor in the delivery of relevant search results (see the discussion of metadata fields, above). The underlying SALO database contains a set of database fields based on the CIMI Dublin Core. The CIMI Dublin Core fields were developed by the academic Museum community as finding aids for digital material, and have been widely adopted for their versatility and common-sense approach to cataloguing. This flexibility has proved to be ideal for accommodating our SALO data. In order to fast-track the publication of our pilot site, the students and the present researcher, performed the “reality check” recommended by the Dublin Core working group: “Is the record itself, and each element within that record, *useful* for resource discovery? If not, leave it out.” (CIMI, 2000: 9) the team began by concentrating on only two elements: the resource title, and its associated URL. At the time of writing we have stopped adding sites, and are writing annotations (or short descriptions) of each resource to enhance the metadata in the “Description” field.

6.4.3 SUBMISSION OF RECOMMENDED SITES BY REMOTE USERS

In addition to being able to search the SALO site, users are able to submit their own recommendations (and comments on the subject directory itself) via an online submission form labelled “Submit a site”. Thirty-five recommendations from remote users were recorded on the submissions database during the first two weeks following the publication of the pilot site. Readers are invited to participate in building our database of links, and to report any errors by accessing the site at <http://salit.dit.ac.za/>

6.5 MAINTENANCE PLAN

6.5.1 Continuous maintenance

The following practices are recommended:

- ❑ Daily – Check e-mail messages from the web master’s mailbox and responding to those that need answers. It is important to acknowledge the receipt of any e-mail message because users of the SALO subject directory will know that their contributions are attended to.
- ❑ Monthly –Make sure that there is a server connection and that the server is always active. If there are problems with the server, the Information Technology specialist at the Durban Institute of Technology can be consulted to assist. Server maintenance is a crucial factor to be considered in order to keep the site active.
- ❑ Quarterly – Content needs to be kept fresh and relevant. This includes adding new links that are relevant to the subject directory. Before new URLs’ can be added, it is important to evaluate if the URL meets the aims of the site i.e. South African literature?
Use a link checker to check that all the links are still active and remove broken or inactive links.
- ❑ Annually – The site needs to be evaluated on a yearly basis to gather information on whether it still provides relevant information. This evaluation allows the different annual evaluations to be compared as to see if there has been any progress.

6.5 **CONCLUSION**

This chapter discussed issues of management and maintenance with regards to the SALO subject directory. This chapter also provided a detailed account of the SALO database.

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APPENDIX 1: QUESTIONNAIRE - SPECIMEN COPY

Address <http://salit.dit.ac.za/Surveysalo01.asp> Go Links



South African Literature Online Subject Directory (SALO)

Questionnaire

Evaluation of the South African Literature Online (SALO) website. [Cover letter.](#)

Use the form below to fill in your personal details and then complete the survey by clicking button next to your choice. At the end, click the "Submit" button.

- #### Personal Details

Name (Optional)

Which job description best describes you? (Select from list)

Have you submitted a printed questionnaire? (Click Yes or No)
- #### Your evaluation

Read the following statements and then click the button of your choice: "1" if you strongly disagree, "2" if you disagree, "3" if you are neutral, "4" if you agree, and "5" if you strongly agree. "1" is the lowest ranking; "5" is the highest.

Click the "Submit" button at the bottom of the page when you have finished.

Have you ever accessed the SALO site? (Click Yes or No)

 - ##### General impression of the website

	1	2	3	4	5
It was easy to access the SALO website	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The pages load quickly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
 - ##### Layout and design

	1	2	3	4	5
The colours in the layout are good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The website is attractive (good to look at)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The topics give a good idea of the content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The fonts are easy to read	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The icons and navigation controls are clearly labelled	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It was easy to find my way around the site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The arrangement of the information is appropriate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
 - ##### Content

	1	2	3	4	5
The purpose of the site is clearly stated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The content is informative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The links to other sites are relevant to the topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is useful information on the topics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The title of the site is indicative of its content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
 - ##### User friendliness

	1	2	3	4	5
The site is easy to use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The site has help menus and aid tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The search facility is effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend this site to other people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

• **Accessibility**

	1	2	3	4	5
The links are always active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is easy to access the other sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The quality of the information on the other sites is relevant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

• **Currency**

	1	2	3	4	5
The site has been updated recently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

• **General comments and suggestions**

Now click Submit button!

Thanks for your time - *Portia Rakoma* rakomaportia@yahoo.co.uk

APPENDIX 2: QUESTIONNAIRE - COPY OF COVER LETTER

15 May 2003
C313 Umdloti Road
Kwa-Mashu
Durban
4360

E-mail: Rakomaportia@yahoo.uk.com

Dear _____

Re: Investigation into the management and maintenance of online subject directories with particular reference the South African Literature Online (SALO) resource

I am currently a Master of Technology student in the Department of Library and Information Studies at the Durban Institute of Technology (formerly the ML Sultan Technikon, Durban). This subject directory is available at (<http://salit.dit.ac.za/sisal.htm>).

Procedures and benefits of the research:

The focus of the research is an investigation of how online subject directories are managed and maintained, as well as the accepted criteria for evaluating an online resource. This questionnaire is being sent to subject librarians who participated in the European Union/Department of Education interventions and a group of South African literature scholars from the SALit discussion group in order to gather data on how well the SALO directory fits into the accepted evaluation criteria. One anticipated outcome of the project will be a development of management guidelines and procedures for the SALO subject directory, and hence a better service for its users.

Attached is the copy of the questionnaire. It would be appreciated if you could spare some time to complete and return it to the sender in the self-addressed envelope enclosed. If you wish to complete the survey online, click the "survey" button on the SALO home page.

The information provided in this survey will be treated in strict confidence and will be used for academic purposes only. I will be grateful if you would take the time to answer the following questions and return it to me at your earliest convenience, but before **30 August 2003**.

Please find the enclosed a self-addressed and stamped/postage paid envelope.

Thank you for your co-operation.

Yours sincerely

Portia Rakoma
M Tech Student

APPENDIX 3: QUESTIONNAIRE - TABULATED RESULTS

ID	6	7	9	10	100	101	102	103	104	105	11	12	13	106	107	Total
Name	Librarian	Bernice Freidwe mahan	Hester Erdman	Librarian	Librarian	Librarian	John van Niekerk	Vegis Naidoo	Librarian	Academic	Robin Terhaarven	Librarian	Yes			
Province	Librarian	Librarian	Librarian	Librarian	Librarian	Librarian	Manager	Spec Prof Librarian	Librarian	Academic	Librarian	Librarian	Yes			
Ababoo1	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	No	Yes	Yes	No	5	4.6
Ababoo2	No	No	No	No	No	No	No	No	No	No	No	No	No	No	4	4.4
Ababoo3	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	5	4.0
Ababoo4	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	4	3.6
Ababoo5	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	5	4.2
Ababoo6	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	5	3.9
Ababoo7	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	2	3.5
Ababoo8	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	2	3.3
Ababoo9	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	4	3.8
Ababoo10	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	3	3.5
Ababoo11	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	4	3.7
Ababoo12	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	4	3.6
Ababoo13	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	4	3.6
Ababoo14	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	4	3.6
Ababoo15	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	3	3.6
Ababoo16	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	4	3.6
Ababoo17	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	5	3.8
Ababoo18	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	5	3.8
Ababoo19	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	5	3.8
Ababoo20	Yes	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	Yes	No	5	3.8

Well done. There is a BACK button which is missing however. Some users don't like frames. I personally don't mind them, but I know that some browsers can't negotiate them. I have perfect eyesight, but I am extremely conscious of the fact that some people are visually impaired. The most legible font for them is VERDANA. My printer can print out the colours okay.

please do not take offence, you asked for an opinion, the scope/range of the chase is not clearly stated, having used other literature chases I assumed one could search by author, at the very least, I suggest you clearly state that only certain terms are acceptable, even better would be to make the 2 dozen terms available in hypertext and make us click on these - your search window raises expectations, also clearly state that one should regulate using browser back button to enter new search, a local nature comes in the form of data, you have a huge amount of progress, because its not going to cut it as it stands -\:dm

I was impressed to access this website and it is informative

I tried out a few key terms like Apartheid/ Postapartheid but found no results. Perhaps the search itself should be modified, so you can either use an author's name and get all secondary or a search for resources or a search for keywords. Just one kind of search opportunity is not enough, I still wonder why I didn't get further information on some topics or authors. It would be valuable if you could have an explanation of how the search works, and an "and-subon" if you get stuck with your research might be very helpful.

I accessed the slight in response to an e-mailed request that I participate in the survey. When I saw the subject heading I thought it was a slight that potentially could be enormously valuable as an academic resource.

However the only active link I was able to find was the "search the site" button. Although there are literary categories listed on the home page, none of these are active links ... what's the point?

I'm a librarian, though not an information librarian working in the field of South African English literature, so I really had no 'real' search in mind that I might be able to apply against the search engine. I thought that to evaluate the site it would be more appropriate for me to approach the subject through the categories as listed. This might have enabled me to get an overview of the type of information I would find there as well as the level at which it is aimed.

Since the links don't work (I'm assuming they were meant to be links and not just descriptive information about the site - this's a bit weird in the context of the survey) I wasn't able to overview it.

On the positive side... the look of the site is good, I p

Robin

APPENDIX 4: TABULATED RESULTS – BY QUESTION

The following tabulated results correspond to the graphical figures presented in the discussion of results in Chapter 5.

Section A: General impressions of the website.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
It was easy to access the SALO website	0	0	0	6	9
The pages load quickly	0	0	2	5	8

Table 10: Cross-Tabulation: Respondents' position on general impression

Table 10 is presented in Chapter 5, and corresponds with Figure 6.

SECTION B: LAYOUT AND DESIGN

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
B1 The colours in the layout are good	0	0	3	9	4
B2 The website is attractive (good to look at)	0	0	3	9	3
B3 The topics give a good idea of the content	Question not answered	1	4	8	1
B4 The fonts are easy to read	Question not answered	Question not answered	2	8	5
B5 The icons for navigation controls are clearly labelled	1	1	Question not answered	10	3
B6 It was easy to find my way around the site	1	3	1	7	3
B7 The arrangement of the information is appropriate	1	2	5	5	2

Table 11: Cross-Tabulation: Respondents position on layout and design and corresponds with Figure 6

Section C: Content

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
C1 The purpose of the site is clearly stated	1	1	3	5	5
C2 The content is informative	0	1	5	9	0
C3 The links to other sites is relevant to the topic	1	1	2	9	2
C4 There is useful information on the topics	1	2	2	8	2
C5 The title of the site is indicative of its content	1	2	2	7	2

Table 12: Cross-Tabulation: Respondents' position on content

4.2.4 Section D: User friendliness

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
D1 The site is easy to use	1	2	2	4	6
D2 The site has help menus and aid tools	3	3	4	3	2
D3 The search facility is effective		4	3	5	3
D4 You would recommend this site to other people	1	2	2	6	4

Table 13: Cross-Tabulation: Respondents' position on user friendliness

4.2.5 Section E: Accessibility

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
E1 The links are always active	1	-	1	11	2
E2 It is easy to access the other sites	1	1	2	10	1
E3 The quality of the information on the other sites is relevant	1	-	3	11	-

Table 14: Cross-Tabulation: Respondents' position on accessibility

4.2.6 Section F: Currency

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
F1 The site has been updated recently	-	3	-	6	4

Table 15: Cross-Tabulation: Respondents' position on currency